



# REPORT

ON THE

## ADMINISTRATION

OF THE

Northern India Salt Revenue Department,

FOR THE OFFICIAL YEAR 1897-98.

*PANJAB, NORTH-WESTERN PROVINCES, OUDH, CENTRAL PROVINCES,  
BERAR, RAJPUTANA, CENTRAL INDIA, BEHAR AND CALCUTTA.*



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**REPORT**  
ON THE  
**ADMINISTRATION**  
OF THE  
*Northern India Salt Revenue Department,*  
FOR  
*THE OFFICIAL YEAR 1897-98.*

THE receipts and charges of the Northern India Salt Revenue Department, for the year under report, will be found fully detailed and compared with those of 1896-97, in Appendix I. The following statement is an abstract of the receipts and charges of 1897-98, and of the three preceding years:—

**GENERAL REVIEW.**  
Receipts and charges.

Year.	Gross receipts.				Charges.				Net receipts.	Percentage of charges.	
	Salt,		Fees, cesses, fines, &c.	Total.	Estab-lishment.	Excava-tion and manufac-ture.	Contin-gent and miscel-laneous.	Total.			
	Excise duty.	Sale price.									
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1894-95	...	1,79,16,716	12,88,967	1,72,007	1,93,77,690	6,11,985	3,81,867	2,63,026	12,56,878	1,81,20,812	6.48
1895-96	...	1,73,35,078	11,09,239	1,68,690	1,86,13,007	6,26,787	3,33,977	2,49,655	12,10,419	1,74,02,658	6.60
1896-97	...	1,74,50,671	11,54,726	1,55,663	1,87,61,060	6,19,677	3,03,524	2,67,400	11,90,601	1,76,70,459	6.35
1897-98	...	1,82,22,729	12,00,863	1,58,822	1,95,82,414	6,06,166	2,86,682	2,51,653	10,94,501	1,84,87,913	5.69

As usual, excise duty includes the duty on Kohat salt and the share due to the British Government on the duty realized on the salt sold at the mines in the Mandi State. Sale price includes the price at which salt was sold, apart from the duty, at the Panjáb mines, and at Sambhar, Pachbadra, Didwana and Falodi in Rájputána. Fees, cesses, fines, &c. comprise (1) all license fees collected in the Internal Branch, (2) the hakimi cess levied on salt sold at the Sultánpur Salt Works, and (3) all miscellaneous collections, including the charge made for filling and clearing through traffic salt at Warthganj in the Panjáb Mines Division, and at Sambhar and Pachbadra in Rájputána.

The gross receipts of the year amounted to Rs. 1,95,82,414. These exceed the figures of 1896-97 by Rs. 8,21,354; of 1895-96 by Rs. 9,69,407; and of 1894-95 by Rs. 2,04,724. The increase in the revenue of the year under review, as compared with that of 1896-97, is due to larger sales of salt having been effected at the Panjáb mines and at Sambhar, and to the enhancement of the duty on the salt of the Kohat mines.

Figures reviewed.

The charges of the year were less than those of 1896-97 by Rs. 96,100, and of those of 1895-96 by Rs. 1,15,918. These figures exclude treaty payments. Compared with 1896-97, there was a decrease of Rs. 13,511 in the cost of establishment, and of Rs. 82,589 on account of contingent and miscellaneous expenditure.



## GENERAL REVIEW.

Excluding treaty payments, the incidence of charges on receipts amounts to 5.59 per cent. as compared with 6.35 per cent. during 1896-97 and 6.50 per cent. during 1895-96. The decrease in the percentage of the year under review is in some measure due to a special cause—a small outturn of salt at the Sambhar Lake, owing to an unfavourable manufacturing season, involving smaller payments on account of the cost of manufacture.

Adjustment of departmental accounts for 1896-97 with the Comptroller, India Treasuries.

2. The adjustment of the accounts of the Northern India Salt Revenue Department for the year 1896-97, between this office and the Comptroller of India Treasuries, and as published in the Finance and Revenue Accounts of the Government of India for that year, was completed during September 1897. Under receipts, the accounts of the Comptroller show Rs. 1,240-3-9 more than those of this Department, owing to a payment into the Quetta Treasury having been erroneously credited to this Department. This difference the Comptroller was unable to adjust owing to the closure by him of the accounts of 1896-97. Under charges, the accounts of this Department show Rs. 1,670-9-5 more than those of the Comptroller, owing to certain payments in the Kohat Mines Division not having been debited to this Department by the Comptroller. This difference also could not be adjusted owing to the closure of the accounts of 1896-97. The accounts of 1897-98 are still under adjustment, and the result will be reported upon in the next annual report.

Strength of establishment.

3. The following figures show the strength of the establishment of the Department, including the Kohat Salt Mines, at the close of the year under report, as compared with 1896-97:—

				Number of officers.	Number of men.
1896-97	...	...	...	161	2,689
1897-98	...	...	...	160	2,486
		Difference	...	—1	—203

These reductions occurred in the following sections of the Department:—

			Number of officers.	Number of men.
Falodi Salt Source	...	...	1	7
Panjáb Mines Division	...	...	...	196
Total	...	...	1	203

In letter No. 3085S.R., dated the 16th of July 1897, Department of Finance and Commerce, the Government of India sanctioned the final relinquishment of the Falodi salt source and the reduction of the establishment posted there, comprising one Inspector, one jemadar, and six peons. This reduction was effected by the absorption of appointments in vacancies, that of the Inspector on the 23rd September 1897, and those of the jemadar and peons on the 1st October 1897.

Towards the close of the year under review, the Government of India decided upon the abolition of the Indus Preventive line, a section of the Panjáb Mines Division, and in letter No. 1030S.R., dated the 1st March 1898, I was directed by Government to take immediate steps for the disbandment of the Indus Preventive force. By the end of March 1898, I was enabled to effect the reduction of 196 men by the absorption of their appointments in vacancies in the Department. Particulars of the reduction of the rest of the establishment will be submitted in the next annual report, the arrangements to that end taking effect during 1898-99.

It will be noticed that all reductions in the establishment have been effected by the absorption of appointments in vacancies, and consequently Government has not been put to any expense in connection with pensions or gratuities.

GENERAL REVIEW.

4. The total quantity of salt issued by the Department during the year amounted to maunds 77,64,851 as compared with maunds 77,33,536 during 1896-97, or an increase of maunds 31,315. The following abstract gives particulars for both years in a comparative form :—

Issues of salt.

	1896-97.	1897-98.	Increase.	Decrease.
	Mds.	Mds.	Mds.	Mds.
Full duty paid ...	68,86,421	70,71,220	1,84,799	...
Issued to Native States free of duty,	1,01,124	2,18,635	27,511	...
Issued to Native States free of price and duty.	31,460	27,960	...	6,500
Kohat salt (paying duty at a special rate).	4,96,170	3,22,404	...	1,73,766
Mandi salt (paying duty at a special rate).	1,25,361	1,24,632	...	729
Total ...	77,33,536	77,64,851	2,12,310	1,80,995

The increase of maunds 1,84,799 in the quantity of full duty-paid salt issued during the year, as compared with 1896-97, was the result of the following fluctuations in the issues of the different descriptions of salt dealt with by the Department :—

Full duty paid.	1896-97.	1897-98.	Increase or decrease.
	Mds.	Mds.	Mds.
Sambhar ...	39,26,210	40,98,440	+1,72,230
Panjáb mines ...	20,26,469	21,57,999	+1,31,530
Pachbadra ...	5,03,832	4,24,827	-79,005
Didwana ...	2,45,381	2,38,403	-6,978
Sultānpur ...	1,11,677	80,080	-31,597
Saltpetre refineries ...	72,652	71,521	-1,131
Total ...	68,86,421	70,71,220	+1,84,799

There was a large increase in sales at Sambhar and in the Panjáb Mines Division, but a falling off elsewhere. Particulars in connection with these fluctuations will be given further on when the trade of the different divisions of the Department is being commented upon.

There was a net increase of maunds 21,011 in the issues of salt free of duty, and free of price and duty, as follows :—

	1896-97.	1897-98.	Increase or decrease.
	Mds.	Mds.	Mds.
Free of duty ...	1,01,124	2,18,635	+27,511
Free of price and duty ...	31,460	27,960	-6,500
Total ...	2,25,584	2,46,595	+21,011

The increase in the issue of salt free of duty occurred in connection with deliveries to the Jodhpur State. The issues under both heads will be discussed in paragraph 5.

Fluctuations in the issue of salt at special rates of duty are shown below :—

	1896-97.	1897-98.	Increase or decrease.
	Mds.	Mds.	Mds.
Mandi mines ...	1,25,361	1,24,632	-729
Kohat mines ...	4,96,170	3,22,404	-1,73,766
Total ...	6,21,531	4,47,036	-1,74,495

## GENERAL REVIEW.

The decrease at the Mandi mines is small, and will be commented upon in the paragraph dealing with those mines. At the Kohat mines a large decrease occurred. During 1896-97 the duty on Kohat salt was enhanced from eight annas to Rs. 2 a Lahori maund, and large quantities of salt issued at the lower rate of duty just prior to the enhancement. The issues of the year under review were at the enhanced rate of duty and sales were effected under more normal conditions. Full particulars on the subject will be given further on, when the trade of the Kohat mines is being dealt with.

Details of issues of salt free of duty and free of both price and duty.

5. The following table gives details of the issues of salt free of duty and free of both price and duty, during the past two years:—

Salt free of duty.					Salt free of price and duty.				
Source from which issued.	State to which issued.	Amount to which State is entitled.	Issues.		Source from which issued.	State to which issued.	Amount to which State is entitled.	Issues.	
			1896-97.	1897-98.				1896-97.	1897-98.
		Mds.	Mds.	Mds.			Mds.	Mds.	Mds.
Didwana ...	Jodhpur ...	2,25,000	31,854	40,000	Sambhar,	Alwar ...	1,000	1,000	1,000
Pachbadra ...			1,39,270	1,70,000		Bhurlpur ...	1,000	1,000	1,000
Falodi ...			15,000	3,635		Dholepur ...	300	300	300
Total Jodhpur,	...	...	1,86,124	2,13,635		Jeypore ...	7,000	7,000	...
Sambhar ...	Rampur ...	6,000	5,000	5,000		Kerowli ...	50	100	...
						Kishengarh...	50	50	50
						Kotah ...	300	...	600
						Lawa ...	10	10	10
					Pachbadra,	Jodhpur ...	14,000	14,000	14,000
						Jodhpur ...	10,000	10,000	10,000
						Udeypur ...	1,000	1,000	1,000
GRAND TOTAL,	...	2,31,000	1,91,124	2,18,635	...	Total ...	34,710	34,460	27,960

The Jodhpur State in Rájputána is entitled to receive maunds 2,25,000 of salt annually on payment of the price, but free of duty, and under the arrangements made by the Darbar, the quantity of salt taken is in accordance with the requirements of the people of the State. The year 1896-97 was one of scarcity, and maunds 38,876 lapsed. Agricultural conditions were more favourable during the latter half of the year under review and only maunds 11,365 lapsed. The statement shows the issues from the three salt sources of Didwana, Pachbadra, and Falodi. This year again the Rampur State drew only maunds 5,000 out of maunds 6,000 of duty-free salt which were due. I note with satisfaction that during the past year no cases came to light of this duty-free salt having been exported beyond the borders of the State to which it was issued.

The several salt agreements authorize the issue of maunds 34,710 of salt free of both price and duty. A running account is kept with the Darbars in connection with this salt. The issues of the past year were less than the authorized quantity by maunds 6,750, and less than the issues of 1896-97 by maunds 6,500. A reference to the statement will show that these fluctuations have mainly resulted from the failure of the Jeypur Darbar to take maunds 7,000, which were due to it during the year under review.

As explained in previous reports, the issue of salt on payment of half duty has now ceased. Bikaner was the only State which possessed the privilege of receiving such salt. Under

present arrangements, salt sold for consumption in the Bikaner State, up to a limit of 20,000 maunds, is charged with full duty at the salt sources, and one-half of this duty is subsequently paid to the Darbar by the Department. During the past year, maunds 8,188 were booked for consumption in the Bikaner State. The full duty on this quantity amounted to Rs. 20,470 and of this sum one-half, Rs. 10,235, was due to the Darbar. Rupees 4,174 were paid to the State during the year under report, and the balance, Rs. 6,061, during 1898-99. The issues of salt under this arrangement during 1896-97 amounted to maunds 9,277, so that there was a decrease of maunds 1,089 during the past year.

6. The statement below shows the annual payment due under the salt treaties and agreements to the Darbars in Rájputána and Central India, to the Bahawalpur State, and to the Istamrardars and Jaghirdars of Ajmere and others, and the sums actually disbursed during the year under report:—

Treaty payments.

State.	Article of treaty or agreement.	Amount payable.	Amount paid.	Remarks.
		Rs. a. p.	Rs. a. p.	
Jeypur	XI. Old Treaty Sambhar	2,75,000 0 0	2,75,000 0 0	
	II. Agreement	4,00,000 0 0	4,00,000 0 0	
	VII. Ditto	11,000 0 0	11,000 0 0	
	VIII. Ditto	2,309 2 7	2,309 2 7	
Jodhpur	XI. Old Treaty Sambhar	1,25,000 0 0	1,25,000 0 0	
	XI. Old Nawa Gudha	3,00,000 0 0	3,00,000 0 0	
	VI. Agreement	3,91,800 0 0	3,91,800 0 0	
	VII. Ditto	19,595 5 3	19,595 5 3	
Udeypur	X. Ditto	1,25,000 0 0	1,25,000 0 0	
	IV. Ditto	12,900 0 0		
	V. Ditto	35,000 0 0	2,08,300 0 0	
	VI. Ditto	1,56,250 0 0		
Ulwar	VII. Ditto	1,25,000 0 0	1,25,000 0 0	
Kishengarh	VII. Ditto	25,000 0 0	25,000 0 0	
Bikaner	VI. Ditto	6,000 0 0	6,000 0 0	
	VII. Ditto	1,50,000 0 0	1,50,000 0 0	
Bhurlpur	Foreign Department No. 1271, dated 14th June 1879.	500 0 0	500 0 0	
Sirohi	IV. Agreement	1,800 0 0	1,800 0 0	
	Government of India, Financial Department No. 2905, dated 21st August 1884.	9,000 0 0	9,000 0 0	
Bahawalpur	VI. Agreement	80,000 0 0	80,000 0 0	
Lawa	V. Ditto	700 0 0	700 0 0	
Dholepur	VII. Ditto	60,000 0 0	60,000 0 0	
Gwallior	VII. Ditto	3,12,500 0 0	3,12,500 0 0	
Dattia	VII. Ditto	10,000 0 0	10,000 0 0	
Bundi	IV. Ditto	8,000 0 0	8,000 0 0	
Tonk	IV. Ditto	20,000 0 0	23,000 0 0	
Bhopal	II. Ditto	10,000 0 0	10,000 0 0	
Jaora	II. Ditto	2,500 0 0	2,500 0 0	
Sitamau	II. Ditto	2,000 0 0	2,000 0 0	
Bathana	II. Ditto	1,000 0 0	1,000 0 0	
Kotah	IV & V Ditto	19,175 0 0	19,175 0 0	
	IV. Ditto	5,000 0 0	5,000 0 0	
Kerowli	Foreign Department No. 222, dated 18th April 1882. G.P.	694 15 0	694 15 0	
Shahpura	IV. Agreement	5,000 0 0	5,000 0 0	
Jhallawar	IV & V. Ditto	7,250 0 0	7,250 0 0	
Istamrardars and Jaghirdars of Ajmere.	Foreign Department No. 1271, dated 14th June 1879.	4,178 0 0	4,178 0 0	
Indore	Supplementary article to clause 2 of agreement.	61,875 0 0	61,875 0 0	
Dewas (Senior Branch).	Ditto	412 8 0	412 8 0	
Dewas (Junior Branch).	Ditto	412 8 0	412 8 0	
Sailana	Ditto	412 8 0	412 8 0	
Narsinghgarh	Ditto	618 12 0		
Rajgarh	Ditto	618 12 0	618 12 0	
Samphar	Foreign Department No. 501, dated 4th January 1884.	1,450 0 0	1,450 0 0	
Thakur of Kaibania,	Financial Department No. 846, dated 15th May 1884.	105 0 0	105 0 0	
Royalty payable to Jeypur.	XII. Old Treaty	82,438 5 9	82,438 5 9	
Royalty payable to Jodhpur.	Ditto	1,37,397 4 2	1,37,397 4 2	
	Total	30,04,633 0 9	30,08,421 4 9	

Not paid.

## GENERAL REVIEW.

The total sum payable during the year amounted to Rs. 30,04,893-0-9, while the sum actually disbursed was Rs. 30,08,424-4-9, a difference appearing of Rs. 3,531-4-0. A running account is kept of these treaty payments, as the entries in the remark column of the table will show. Payments are arranged by the Comptroller of India Treasuries, and the amount disbursed represents the adjustment during 1897-98, under the head of assignments and compensations in connection with this Department.

Financial result of the salt agreements.

7. The abstract below gives the usual account of the financial results for the past year of the Sambhar Lake Treaties and of the salt agreements concluded with the Darbars when the other salt sources in Rájputána were leased, and the customs line was abolished :—

<i>Credits—</i>				Rs.
Price of 6,73,836 maunds of Sambhar salt, at an average of 4 annas per maund	...	...	...	1,68,459
Duty on 6,73,836 maunds, at Rs. 2-8 per maund	...	...	...	16,84,500
Price of 63,815 maunds of Didwana salt, at 1 anna per maund	...	...	...	3,989
Duty on 19,782 maunds, at Rs. 2-8 per maund	...	...	...	49,330
Duty on 4,083 maunds, at Re. 1-4 per maund	...	...	...	5,104
Price of 3,22,304 maunds of Pachbadra salt, at 1½ annas per maund,	...	...	...	30,216
Duty on 1,57,599 maunds, at Rs. 2-8 per maund	...	...	...	3,93,997
Duty on 3,610 maunds, at Re. 1-4 per maund	...	...	...	4,513
Price of 3,635 maunds of Falodi salt, at 3 annas per maund	...	...	...	682
Average cost for the three years ending 31st March 1879 of the abolished customs line	...	...	...	8,30,506
Total				31,71,386
<i>Debits—</i>				
Treaty liabilities in 1897-98 to Native States under salt agreement,	...	...	...	20,85,057
Share of Sambhar Lake treaty payments for 1897-98 calculated on the quantity of salt sold from Sambhar for consumption in Native States	...	...	...	1,51,049
<i>Shares similarly calculated of—</i>				
(1) Sambhar Lake fixed and contingent charges	...	...	...	40,584
(2) Fixed and contingent charges of the Didwana salt	...	...	...	7,527
(3) Ditto ditto Pachbadra salt	...	...	...	52,126
(4) Ditto ditto Falodi salt	...	...	...	1,015
Total				23,37,358
Credit balance				8,34,028

The sales of salt for which credit has been taken are those declared at the salt sources, at the time of issue or clearance, to be for places in Native territory. The credit balance of the year amounts to Rs. 8,34,028, and even if the average cost of the abolished customs line be omitted from the account, there still remains a balance of Rs. 3,522 at credit.

8. During the first three months of the year, the scarcity and distress occasioned by the failure of the monsoon rainfall of 1896 continued to be so acute and widespread that, except in the case of two States, I refrained from deputing officers to Native territory to inspect saline localities and report upon the due observance of the salt agreements.

The Political Officers having informed me that there was no objection to an inspection of Udaipur and Shalhpura, an Assistant Superintendent of this Department was deputed to visit the salt lands of those two States, and the manufacture of earth salt was found to be effectually suppressed.

The Kachor-Rewasa, Sargot and Kuchaman salt marshes in the neighbourhood of the Sambhar Salt Lake, were inspected by officers deputed from Sambhar, and were found to be in a safe condition during the year.

Towards the close of the year under report, officers were deputed by me to inspect the salt lands of the States of Samphar, Dattia, Dholpur, Bhurtpur, Alwar, Jeypur,

Deputation of officers to inspect salt-producing tracts in various Native States.

Kishengarh, Udaipur, Shahpura, Tonk, Kotah, Bundi, and Bahawalpur. The inspection of these States was in progress when the year closed, and the result will therefore be commented upon in the next annual report.

## GENERAL REVIEW.

9. The following statement gives information in regard to the working of the system for the collection of the revenue of this Department through the agency of the Post-office during the past four years:—

Collection of salt revenue through the agency of the Post-office.

Year.	Panjáb mines rock salt.			Sambhar salt.			Pachbadra salt.			Total.		
	Number of post-offices utilized.	Maunds of salt.	Realizations.	Number of post-offices utilized.	Maunds of salt.	Realizations.	Number of post-offices utilized.	Maunds of salt.	Realizations.	Number of post-offices utilized.	Maunds of salt.	Realizations.
		Mds.	Rs.		Mds.	Rs.		Mds.	Rs.		Mds.	Rs.
1894-95 ...	13	15,340	39,577	27	66,028	1,64,791	5	7,442	19,420	45	88,810	2,43,768
1895-96 ...	8	19,962	51,994	24	55,532	1,53,583	3	7,490	19,955	35	82,981	2,25,532
1896-97 ...	8	8,554	22,053	19	35,993	99,512	3	7,725	20,158	30	52,273	1,41,763
1897-98 ...	5	5,625	14,502	14	36,538	1,01,050	4	16,150	42,141	23	58,313	1,57,693

The figures of the year under review are much below those of 1894-95 and 1895-96; but compared with 1896-97 the decrease in collections on account of Panjáb rock salt is more than counterbalanced by the increase in revenue realized on Sambhar and Pachbadra salts. In connection with Pachbadra salt, the transactions during the year under report were more than double those of 1896-97.

Out of a total quantity of maunds 40,01,685 of Sambhar, Pachbadra, and Panjáb rock salt sold under the through traffic system, the revenue on only maunds 58,313 was collected at 23 post-offices. Though the business done was small, the system was undoubtedly a convenience to those who took advantage of it.

10. The following figures show, in a comparative form, the quantities of salt on which the Indian Midland Railway realized revenue for the Department, free of charge, during the past two years:—

Collection of salt revenue by station masters on the Indian Midland Railway.

	1896-97.	1897-98.
	Mds.	Mds.
Sambhar salt ...	40,101	55,095
Pachbadra salt ...	16,105	29,384
Panjáb rock salt ...	25	25
Total ...	56,231	84,504

There was an increase of maunds 28,273 in the transactions of the year under report, in connection with Sambhar and Pachbadra salt. The quantity of Panjáb rock salt dealt with was insignificant, as the trade in that salt with the country traversed by the railway is small. The system worked smoothly, and though the business done was not large, the arrangements under which the price and duty on salt sought to be purchased can be paid in at any railway station is a convenience to traders.

11. Full details of the receipts and charges, and of the operations of each section of the Department, will be found in the succeeding paragraphs.

## REVIEW BY SECTIONS.

REVIEW BY SECTIONS.  
CENTRAL OFFICE.

The following table shows the total fixed and contingent charges of the Central Office during the past four years :—

Year.				Fixed.	Contingent,	Total.
				Rs.	Rs.	Rs.
1894-95	...	...	...	70,506	12,789	83,295
1895-96	...	...	...	71,932	11,260	83,192
1896-97	...	...	...	73,690	11,437	86,127
1897-98	...	...	...	62,118	13,745	75,863

Decrease in fixed

The decrease of Rs. 12,572 in the fixed charges of the year under review, as compared with 1896-97, was due to my not having been absent on leave during the past year; to the officiating Deputy Commissioner having drawn a smaller salary than the permanent incumbent, who was on leave in England; and to exchange compensation having been drawn at lower rates.

and increase in contingent charges explained.

Under contingencies, the expenditure of the year under report exceeded that of 1896-97 by Rs. 2,308. This was due to the tours of officers having been more extended; to expenditure incurred on account of the uniforms of subordinates; and to a payment of Rs. 607 having been made to the Indian Midland Railway, under the sanction of the Government of India, on account of a supply of printed forms utilized in connection with the realization of the revenue of this Department at railway stations on that line.

PANJAB MINES.  
Receipts, charges, and net revenue.

12. The following statement shows the gross receipts, the fixed and contingent charges (including the cost of the Indus Preventive line), and the net revenue of the Panjáb Mines Division, for the past and three preceding years :—

Year.		Gross receipts.				Charges.				Net revenue.	Percentage of charge on receipt.
		Salt duty.	Salt price.	Miscellaneous collections.	Total.	Fixed.	Excavation.	Other contingencies.	Total.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
1894-95	...	46,03,521	86,316	54,001	47,43,928	1,66,602	72,351	93,759	3,32,912	44,11,016	7.03
1895-96	...	55,09,689	99,533	62,036	54,70,263	1,67,370	77,486	95,205	3,40,061	51,30,202	6.21
1896-97	...	50,68,173	91,992	58,791	52,19,866	1,63,613	82,503	91,122	3,37,238	49,82,628	6.46
1897-98	...	53,91,999	1,01,156	62,582	55,58,737	1,53,930	82,173	80,136	3,21,239	52,37,493	5.78

The gross receipts of the year under report are higher than those of any of the three preceding years; exceeding the figures of 1896-97 by Rs. 3,38,871, of 1895-96 by Rs. 88,474, and of 1894-95 by Rs. 8,14,809. These fluctuations will be dealt with further on when the trade of the Division is being commented upon.

Decrease in charges explained.

On the other hand, charges were lower than those of any of the three preceding years. The expenditure of the past year was less than that of 1896-97 by Rs. 15,999. Under fixed charges there was a decrease of Rs. 4,683 owing to reductions effected in connection with the abolition of the Indus Preventive line. Under the head of excavation there was a small decrease, but not of importance. And under other contingent charges there was a decrease of Rs. 10,986, owing principally to the discontinuance of compensation for dearness

of food-grain to the subordinate establishment, and to economies effected during the year by the postponement of works.

REVIEW BY SECTIONS.  
PANJAB MINES.

The net revenue of the Division was higher than that of 1896-97 by Rs. 3,54,870, than that of 1895-96 by Rs. 1,07,296, and than that of 1894-95 by Rs. 8,26,482.

13. The work done in the mines of this Division during the year may be briefly described as follows:—

Work in the Panjab Mines.

*The Mayo Mine.*—The excavation work done during the year was as shown below:—

The Mayo Mines.

Forward work	...	...	...	...	288,418 cubic feet.
Roof work	...	...	...	...	109,741 ditto.
Floor work	...	...	...	...	1,052,059 ditto.

The high proportion of floor work indicates that the mine is capable of producing very large quantities of salt. The mine now extends over an area with an extreme horizontal length, measured parallel to the strike of the strata, of 2,638 feet; and an extreme breadth, measured parallel to the dip, of 1,374 feet. Roughly, the mine is about half a mile in length by a quarter of a mile in breadth. Its greatest vertical depth, measured from the highest to the lowest points in ordinary workings, is 403½ feet; 273 feet passing through the two salt seams known as Bagi and Sajiwal, and 130½ feet through marl into the lowest known seam of Pharwala. This last salt seam has been but little worked as yet, and that not far from the surface. It has been hardly worked at all for some years past, for the reason that, following the dip, the strata fall at an angle of 45° to the northward (30° west of north), and therefore this seam is very low in the hill at the point in that direction to which excavation in the other seams overlying it has now been carried. The mine hill rises to a height of 700 feet above the level of the bed of the Khewra gorge at the miners' village. Regular excavation has now reached an extreme height of 273 feet above, and a greatest depth of 130½ feet below, the level of the gorge bed. The direction of progress is now nearly all downwards. To the eastward, horizontal extension is still practicable, and is, to a slight extent, in progress, but only with a view of opening out a reserve for the future. The dangerous condition of that part of the old Bagi mine, which was worked before the present scientific system of mining was introduced, prevents extension westwards, at all events until a much deeper level than that at present touched has been reached. Towards the south, the higher levels of the hill were practically worked out twenty-five years ago, and very little extension in that direction is practicable. Northwards, there is salt in the hill, overlying the Bagi seam, and at a level higher than any yet worked. This was explored twenty years ago, and was then left as a reserve. This salt was opened out recently, but it was found to be inferior in colour, and the workings were closed. It is possible that better salt may exist in the lower levels, and this will be tested. At present, we obtain our supply of salt from the Bagi and Sajiwal seams, and these continue to be very fine. In the higher levels, the Sajiwal seam is 60 feet in thickness; in the lower, the seam of marl, which divides the Bagi from the Sajiwal seam, dies out altogether towards the west, and there the two seams combine and form a solid stratum of most excellent rock salt 250 feet in thickness. Towards the east also, where the two seams are still separated by a stratum of marl (which, however, is thinning out at the lower levels), the Sajiwal seam is 60 feet thick. The Bagi seam comprises two strata of salt, 90 feet and 30 feet in thickness, with a stratum of marl between them. This marl



REVIEW BY SECTIONS.  
PANJAB MINES.

stratum is thickest about the centre of the mine, but thins out towards the east and west until it dies out altogether. At lower levels, this marl dies out to the northward also. There are no signs whatever of exhaustion in these two salt seams. They increase in thickness at the lower levels and the salt found improves in quality. The mine has been worked for ages past. A tradition exists among the miners that their tribe has worked in the mine for the past 800 years. In the year 1850, a special department was organized in the Panjáb for the collection of the revenue on salt, and since the beginning of that year down to the close of the year under review the total quantity of salt excavated from the mine hill amounts to maunds 5,34,63,085, or about two millions of tons.

Good work was done during the year in driving tunnels in the mine. These had for their object—(1) the exploration of unknown parts of the mine hill; (2) the opening out of new mining faces for ordinary work; (3) the provision of places of refuge in connection with blasting operations; (4) the construction of passages from one chamber to another; (5) the ventilation of workings; and (6) the connection of workings with tramway lines, in order to facilitate the removal of salt. For purposes of exploration, tunnels were driven from two points, for distances of  $193\frac{1}{2}$  feet and 52 feet, respectively, in order to connect the Sajiwal and Pharwala salt seams. The salt of the latter is good at its surface, and the stratum is 50 feet in thickness. It is divided from the Sajiwal seam by marl and impure salt 100 feet thick. The mine workings having advanced in some places down to the level of the gorge bed, and also beyond the heart of the mine hill towards its northern face, fitting localities became available from which to start tunnels for the purpose of thoroughly exploring the Pharwala seam. Two points were selected, and if the progress of the tunnels is not stopped by water, I hope to obtain useful information during the current year regarding an important seam of salt. Towards the east and south-east of the mine, there are large quantities of salt only now being opened out, and these need to be connected with the tramway. For this purpose, tunnels aggregating 226 feet in length were driven during the year.

The old mines which extend along the southern boundary of the new mine have caused much anxiety in past years owing to the danger of their falling in. Efforts to remove this danger have been made for many years past, and were not relaxed during the year under review. The portion of the old Sajiwal mine, which yielded the greater part of the salt excavated down to the beginning of 1872, has been filled up with waste salt and so rendered safe. The Pharwala and Makhad mines still remain dangerous, but these are smaller and of lesser importance. The work of filling up all of these old mines with waste salt will be steadily continued.

The passages in the mine are all properly fenced, and are safe. Great care has been exercised in connection with this work, in view to preventing the occurrence of any accident. The air passages are also in good working order, and the mine is well ventilated throughout.

The new tramway tunnel, the roof of which was unsafe in parts, has been lined with masonry wherever it appeared to be at all dangerous. A total length of 464 feet has been protected in this manner, of which 100 feet were lined during the year under report. Thomson's tunnel, the passage for the ingress and egress of the miners, is now quite safe. A length

of 427 feet of it is lined with masonry walls and a log roof, which answers well, as the tunnel is a narrow one.

REVIEW BY SECTIONS.  
PANJAB MINES.

The mine tramways worked during the year with the greatest efficiency. All of the salt removed from the mine was carried over the tram lines to the Warthganj depôt. Measured from the mine mouth inward, these lines now cover an extreme length of 6,800 feet, and are laid at different levels, so as to bring them as near as possible to the workings in the mine. The main tram line is laid in what is called the new tunnel. It now extends inward from the mine mouth, a distance of 3,015 feet, and this length is being added to. Another length of 162 feet of tunnel is being prepared for a tramway extending to a large field of salt little more than touched as yet.

I am glad to be able to say that though many of the workings have now been carried below the level at which water might be expected to give trouble, the mine hill has proved remarkably dry. Some water has accumulated in five of the old workings, but there is no increase to this. In fact there is less water now in the mine than there was twenty years ago, owing to the annually increasing number of drains constructed to carry off the rainfall from the surface of the mine hill. There are now 883 lineal feet of these drains, and they have had the best effect in preventing scouring on the surface, and percolation into the interior of the hill.

*The Warcha Mine.*—The mine worked at present is being excavated on the same scientific principles as the Mayo mine, with chambers 45 feet in width, and continuous walls between, 25 feet in thickness, for the support of the roof. The advance in this mine is very slow owing to the trade being small. The seam at present worked comprises two strata of salt, each 10 feet in thickness, with a thin layer of marl about a foot thick between them. The supply of salt is ample.

The Warcha mine.

Heavy falls continue to occur in the old mine which was abandoned many years ago. This old mine is being gradually filled up to the roof with waste salt, and is so being made safe.

There is very little water in the Warcha mine. Some percolation has occurred in an exploration tunnel, but the quantity is very small and does not cause inconvenience. This percolation water has in admixture a small proportion of petroleum.

Eighty lineal feet of exploration tunnelling were driven during the year in order to test the contents of the hill below the salt seam being at present worked. This tunnel is still progressing, and so far it has not yet exposed a really good workable seam of salt.

*The Nurpur Mine.*—This is very small and supplies local demand only. It is being excavated on the same principles as the Mayo and Warcha mines, and it is quite safe.

The Nurpur mine.

*The Kalabagh Quarries.*—These are all open excavations on the eastern face of the Saudagar hill near the town of Kalabagh, where exposed seams of rock salt appear. The salt obtained from these quarries is of very superior quality, and work in them was carried on satisfactorily during the year.

The Kalabagh quarries.

14. It is satisfactory to be able to note that there were no accidents of any kind at the Mayo, Warcha, and Nurpur mines during the year. At the Kalabagh quarries a miner's foot was crushed by the fall of some rock salt upon it. This was the only accident which occurred.

Accidents in the mines.

## REVIEW BY SECTIONS.

## PANJAB MINES.

Stock balances, production, and sales of salt at the Mayo mines.

15. The following statement shows the opening stock balance, the quantity of salt excavated, and the balance of stock in hand at the Mayo mine during the past and three preceding years:—

Year.	Balance in store at commencement of the year.	Excavation during the year.	Total of columns 2 and 3.	Issued during the year.	Balance in store at close of the year.
	Mds.	Mds.	Mds.	Mds.	Mds.
1894-95 ...	4,81,314	17,19,269	22,03,613	16,55,027	5,48,586
1895-96 ...	5,48,586	18,82,229	24,30,815	19,40,640	4,90,175
1896-97 ...	4,90,175	18,36,868	23,27,043	18,40,229	4,86,814
1897-98 ...	4,86,814	19,57,792	24,44,606	19,75,769	4,68,837

The quantity excavated is equivalent to 14,50,218 cubic feet of rock salt mined during the year.

The balance at the close of the year was less than that of 1896-97 by maunds 17,977. The figures, however, do not include a quantity of maunds 52,415 lying at the Warthganj depôt, which had been sold, but not cleared, on the 31st of March 1898, and another quantity of about 10,000 maunds lying in the mine, which had been excavated but not paid for. Including these two items, the balance of stock at Khewra at the close of the year under review amounted to maunds 5,31,252. This quantity was sufficient to meet the demand for three months, and was a sufficient reserve. The supply of mining labour is ample, excavation can be rapidly effected as we always have large workings available, and with our tramway system in its present efficient condition we could readily meet any demand which might arise.

Cost of excavation.

The next statement shows the cost of excavating salt at the Mayo mine during the past four years:—

Year.	Quantity of salt excavated.	Cost of excavation.	Rate per 100 maunds.
	Mds.	Rs.	Rs. a. p.
1894-95 ...	17,19,269	60,919	3 8 8-32
1895-96 ...	18,82,229	76,248	4 0 9-78
1896-97 ...	18,36,868	74,410	4 0 9-78
1897-98 ...	19,57,792	79,306	4 0 9-78

As in previous years, the yield for every 100 cubic feet of salt excavated was calculated at 135 maunds. The rate paid during the year, 10½ pias a cubic foot, or Rs. 4-0-9-78 for every 100 maunds, was the same as during 1895-96 and 1896-97. The system of payment by cubic measurement has been in force for the past 26 years, and the rate now paid is sufficiently remunerative.

Sales and deliveries.

16. The two statements which follow show—(1) the sales and deliveries of salt from the Panjáb Mines Division; and (2) a classification of the same figures by depôts, and under the different heads of through traffic, ordinary trade (salt removed by the merchants themselves), and trade within the protected area of the salt range:—

Year.	Sales.	Deliveries.	Increase or decrease over sales.
	Mds.	Mds.	Mds.
1894-95 ...	18,41,408	17,83,646	-57,762
1895-96 ...	21,23,176	21,51,088	+27,612
1896-97 ...	20,26,469	20,48,563	+22,094
1897-98 ...	21,57,999	21,78,533	+20,534

			Sales and clearances.							
			1896-97.				1897-98.			
			Through traffic trade.	Ordinary trade excluding Farodi trade.	Trade with protected areas.	Total.	Through traffic trade.	Ordinary trade excluding Farodi trade.	Trade with protected areas.	Total.
			Sales.							
Warthganj	...	...	17,67,409	72,820	...	18,40,229	19,09,377	66,391	...	19,75,768
Nurpur	...	...	...	4,111	...	4,111	...	4,465	...	4,465
Warcha	...	...	...	99,028	...	99,028	...	73,512	...	73,512
Kalabagh	...	...	...	83,101	...	83,101	...	1,04,254	...	1,04,254
Total	...	...	17,67,409	2,59,060	...	20,26,469	19,09,377	2,48,622	...	21,57,999
			Clearances.							
Warthganj	...	...	17,82,130	70,202	7,058	18,59,390	19,31,083	59,271	6,971	19,97,325
Nurpur	...	...	...	...	4,153	4,153	...	...	4,465	4,465
Warcha	...	...	...	94,212	5,578	99,820	...	70,076	5,701	75,777
Kalabagh	...	...	...	81,794	3,406	85,200	...	97,806	3,160	1,00,966
Total	...	...	17,82,130	2,46,238	20,195	20,48,563	19,31,083	2,27,163	20,297	21,78,533

The sales of the year under report are the largest of the four yearly periods. The figures exceed those of 1896-97 by maunds 1,31,530; those of 1895-96 by maunds 34,523; and those of 1894-95 by maunds 3,16,591. The average annual sales of the past four years amount to maunds 20,37,338, and those of year under review exceed this average by maunds 1,20,661.

Compared with 1896-97, there was a large increase of maunds 1,35,539 in the trade of the Warthganj depôt (which is supplied from the Mayo mine); a good increase of maunds 21,153 at the Kalabagh quarries; a small increase of maunds 354 in the petty local trade of Nurpur; and a falling off of maunds 25,516 at Warcha.

The increase in the trade of the year under report was principally due to the general return to prosperity of the country after the agricultural depression which followed the failure of the monsoon rainfall of 1896, and partly also (1) to the gradual return to its normal condition of the trade with the Kashmir State, and (2) to the enhancement of the duty on Kohat salt having resulted in an increase in the consumption of Cis-Indus salt along the river Indus, and in the northern portion of the Hazara district. In every direction the trade of the Division was satisfactory during the year.

The clearances of the year were in excess of those of 1896-97 by maunds 1,29,970; of those of 1895-96 by maunds 27,445; and of those of 1894-95 by maunds 3,94,887. The clearances of the past four years average maunds 20,40,457, and the figures of 1897-98 exceed this quantity by maunds 1,38,076. From this it will be seen that the volume of salt actually issued for consumption was steadily maintained.

# REPORT ON THE ADMINISTRATION OF THE NORTHERN INDIA

## REVIEW BY SECTIONS. PANJAB MINES.

Through traffic and ordinary sales.

In issues there was, compared with 1896-97, a large increase of maunds 1,37,935 at the Warthganj depôt (the salt of the Mayo mine); a good increase of maunds 15,766 at the Kalabagh quarries; a small increase of maunds 312 at Nurpur; and a falling off of maunds 24,043 at Warcha.

17. The figures relating to the through and ordinary trade of the Division during the past four years will be found in the following comparative table:—

		1894-95.	1895-96.	1896-97.	1897-98.
		Mds.	Mds.	Mds.	Mds.
Through traffic	...	15,94,719	18,01,987	17,67,400	19,09,377
Ordinary	...	2,46,689	3,21,489	2,59,060	2,48,622
Total	...	18,41,408	21,23,476	20,26,460	21,57,999

Through traffic business is carried on at the Warthganj depôt only, in connection with the Mayo mine. Compared with the entire trade, it amounted during the year to 88·47 per cent. against 87·21 per cent. in 1896-97. The quantity of salt sold under this system during the past year exceeded the sales of 1896-97 by maunds 1,41,968, and was also in excess of the figures of the two years preceding.

Sales under ordinary trade were less than those of 1896-97 and 1895-96 by maunds 10,438 and maunds 72,867 respectively, and exceeded the figures of 1894-95 by maunds 1,933 only.

The trade in the rock salt of the Mayo mine is very widespread, and the large proportion of through traffic sales shows the popularity of the system under which money can be paid into the most distant treasuries, and the salt despatched through the agency of the Department. This system, which worked with the greatest smoothness during the year, not only facilitates trade operations, but cheapens salt to the consumer.

Distribution of traffic.

18. The following statement shows, for the past four years, the quantities of salt cleared and removed from the Panjáb Mines Division by railway, road, and river for consumption:—

(1) in the Panjáb and in Sindh, Kashmir, and Baluchistan;

(2) in the North-Western Provinces and Oudh, Bengal, and other places.

Year.	For consumption within the Panjáb (including Kashmir, Sindh, and Baluchistan).			For consumption in other places.	Grand Total.
	By rail.	By road and river.	Total.	By rail.	
	Maunds.	Maunds.	Maunds.	Maunds.	Maunds.
1894-95	13,95,065	1,71,815	15,66,880	2,13,766	17,83,646
1895-96	17,51,924	1,48,751	19,30,675	2,20,413	21,51,088
1896-97	16,28,179	1,63,179	18,07,358	2,41,205	20,48,563
1897-98	17,26,310	1,16,338	18,72,657	3,05,876	21,78,533

Of the salt destined for the Panjáb, Sindh, Kashmir, and Baluchistan, 92·19 per cent. was removed by railway and 7·18 per cent. by road and river. For other places, all removals were by railway.

The clearances for the Panjáb, Sindh, Kashmir, and Baluchistan show a satisfactory increase of maunds 65,299 over

those of 1896-97. The figures are below those of 1895-96, as in that year there was an abnormal demand in Kashmir owing to the revenue farming contract being about to change hands, but they are in excess of the quantity cleared during 1894-95 by maunds 3,02,777.

The trade with the North-Western Provinces and Bengal shows an increase of maunds 64,671 over 1896-97, and the trade is steadily progressive.

19. The rail-borne trade of the Warthganj depôt, connected with the Mayo mine, will be found classified by railways in the statement below:—

REVIEW BY SECTIONS.  
PANJAB MINES.

Rail-borne trade of the  
Warthganj Depôt.

Name of Railway.	1894-95.	1895-96.	1896-97.	1897-98.
<i>Through traffic.</i>	Mds.	Mds.	Mds.	Mds.
North-Western Railway ...	12,56,674	15,69,855	14,93,945	15,67,974
East Indian Railway ...	82,633	92,055	1,18,040	1,51,780
Oudh and Rohilkhand Railway ...	1,16,918	1,09,508	1,09,320	1,38,825
Rewari-Ferozpur Branch of the Rájputána-Malwa Railway.	16,581	25,324	23,990	24,179
Indian Midland Railway ...	...	150	25	25
Bengal and North-Western Railway,	565	980	160	4,200
Delhi-Umballa-Kalka Railway ...	63,851	39,665	36,650	44,100
<b>Total</b> ...	<b>15,36,222</b>	<b>18,37,537</b>	<b>17,82,180</b>	<b>19,31,083</b>
<i>Ordinary Trade.</i>				
North-Western Railway ...	27,163	1,02,673	40,387	29,989
<b>Total</b> ...	<b>27,163</b>	<b>1,02,673</b>	<b>40,387</b>	<b>29,989</b>
<b>GRAND TOTAL</b> ...	<b>15,63,385</b>	<b>19,40,210</b>	<b>18,22,517</b>	<b>19,61,072</b>

#### *Through Traffic.*

*The North-Western Railway.*—Compared with 1896-97, there was an increase of maunds 74,029 in the bookings to stations on this railway. The improvement was very widespread, and was principally due to favourable agricultural conditions in the Panjáb during the year. To some extent also, the increase in the trade was owing to a return to its normal state of the traffic with Kashmir, and to *Cis-Indus* salt having displaced Kohat salt along the Indus.

*The East Indian Railway.*—Here also there was an increase in the traffic, the figures of the year under report exceeding those of 1896-97 by maunds 33,740. The trade with the section of the line in the North-Western Provinces was not large, as rock salt is not much consumed by the people of the country through which it passes; Rájputána salt being preferred. But there was a great improvement in the traffic with the province of Behar in Bengal; rock salt having been sent during the year as low down as Bhagalpur and Sahibganj.

*The Oudh and Rohilkhand Railway.*—In comparison with 1896-97 the trade with this railway during the year increased by maunds 29,505. The chief centre of consumption on this line is the country served by the section between Fyzabad and Benares. In the Fyzabad and Jaunpur districts the consumption of rock salt is now large, and is steadily increasing. One feature of the trade is an increase in the traffic with Rai Bareli, over the Lucknow-Rai Bareli line, which indicates that rock salt is pressing into southern Oudh.

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PANJAB MINES.

*Rewari-Ferozpur Railway.*—This is a branch of the Rájputána-Malwa line. The trade over it was steady during the year with a slight tendency to increase.

*Indian Midland Railway.*—One petty despatch of 25 maunds was sent to the Morar station (near Gwalior) on this line. Rájputána salt is consumed in the country traversed by this railway. Rock salt is used only for medicinal and religious purposes, and supplies are generally obtained from neighbouring marts, such as Agra and Cawnpore.

*Bengal and North-Western Railway.*—The traffic with this line during the year amounted to maunds 4,200, compared with only 160 maunds during 1896-97; 3,000 maunds were sent to Gorakhpur, 600 maunds to Uska Bazaar, and 600 maunds to Gonda. Rock salt should find a good market in the damp country trans-Ghagra, as it wastes less from moisture than other salts.

*Delhi-Umballa-Kalka Railway.*—A satisfactory increase appears in connection with this railway, of maunds 7,450 compared with 1896-97. Over the section between Delhi and Umballa, the trade was normal, with only a slight improvement. The principal increase in the traffic occurred on the section between Umballa and Kalka, mainly in bookings to Kalka. This was an indication of an improved trade with the hill country north of Kalka.

*Ordinary Trade.*

Salt cleared by merchants themselves was booked only to stations on the North-Western Railway. The figures of the year under report were lower than those of 1896-97 by maunds 10,398. Clearance by mercantile agency has generally decreased throughout the Panjáb, the most notable instance having connection with the mart of Rawal Pindi, to which only maunds 4,100 were sent as compared with maunds 17,140 during 1896-97. The through traffic system, under which salt revenue can be paid into any treasury and depositors are supplied with salt with rapidity and precision, is now working so efficiently that merchants find it unnecessary to go to the expense of maintaining agents at Warthganj to despatch salt to them.

Removals of ordinary trade salt by road from the Warthganj depôt amounted during the year to maunds 36,253 compared with maunds 36,873 during 1896-97. The condition of the trade was normal. The principal localities served by this road traffic were Multan, Jalalpur, and Chakwal; 245 maunds were booked to Sukkur compared with 440 maunds during 1896-97.

The following figures show the direct trade in rock salt with the North-Western Provinces, Oudh, and Bengal during the past five years:—

							Mds.
1893-94	...	...	...	...	...	...	2,40,833
1894-95	...	...	...	...	...	...	2,15,697
1895-96	...	...	...	...	...	...	2,20,413
1896-97	...	...	...	...	...	...	2,41,180
1897-98	...	...	...	...	...	...	3,05,851

There has been a steady improvement in the trade during the past four years. This has been owing to the increased consumption of Panjáb rock salt in the province of Behar in Bengal, and in the country lying between Fyzabad in Oudh and Benares in the North-Western Provinces. During the year under report indications have appeared of an increased trade with the country trans-Ghagra also.

20. The sales and deliveries of salt at the three lesser mines and depôts of Warcha, Kalabagh, and Nurpur during the past four years will be found in the following statement :—

## REVIEW BY SECTIONS.

## PANJAB MINES.

Sales and deliveries at the Warcha, Kalabagh, and Nurpur Mines.

Year.	Warcha.		Kalabagh.		Nurpur.	
	Sales.	Deliveries.	Sales.	Deliveries.	Sales.	Deliveries.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
1894-95 ...	1,01,935	1,05,085	80,321	77,350	4,122	4,316
1895-96 ...	85,198	81,726	93,152	93,159	4,186	4,530
1896-97 ...	99,028	99,820	83,101	85,200	4,111	4,153
1897-98 ...	73,512	75,777	1,04,254	1,00,966	4,465	4,465

*Warcha.*—The clearances of salt from the depôt of this mine amounted during the year under report to maunds 75,777, compared with maunds 99,820 during 1896-97, or a decrease of maunds 24,043. The salt of the Warcha mine is of superior quality, and is much liked by the trade, but the depôt lies under the disadvantage of being nine miles from the nearest railway station, Ganjial, on the Sind Sagar branch of the North-Western Railway. This disadvantage has had an effect upon the trade of the Warcha mine and depôt for some years past, and during the year under review there was a scarcity of carriage owing to the operations on the frontier, which accentuated the difficulty under which the trade labours in connection with the removal of the salt. After it leaves the depôt on pack animals, the trade divides itself for the most part into traffic by road, river, and railway. From the mine and depôt, the greater part of the salt is conveyed to Kushab on the Jhelum, and is sent thence down that river in boats as far as Multan, river marts being supplied on the way. During 1897-98 only 44,121 maunds were booked to Kushab, compared with 54,808 maunds during the previous year, a decrease of 10,687 maunds. The railway traffic is with the section of the Sind Sagar line running parallel with the Indus, from Kundian Junction down to Muzaffargarh. Along this section there was a general decrease in the trade, the most noteworthy instances being a falling off of over two thousand maunds at each of the marts of Bhakkar, Leiah, and Muzaffargarh. It is possible that the trade may improve as means of carriage become available. The decline has not affected the revenue of the division, as it has been more than made up by larger issues of salt from Kalabagh and the Warthganj depôt.

*Kalabagh.*—The deliveries from these quarries amounted to maunds 1,00,966 during the past year, compared with maunds 85,200 during 1896-97, or an increase of maunds 15,766. A part of this last-named quantity took the place of the salt of the Warcha mine, and some displaced Kohat salt along the river Indus. The Kalabagh quarries lie immediately on the right bank of the river Indus, and the railway terminus at Mari is almost directly opposite on the left bank. Here also the traffic is by road, river, and railway. The road and river trade amounted during the year to maunds 29,843, compared with maunds 28,333 during 1896-97, or a small increase of maunds 1,510. Salt is carried in boats both up and down the Indus. Maunds 1,435 were carried up to Khushalgarh, compared with only 521 maunds during 1896-97.



REVIEW BY SECTIONS.  
PANJAB MINES.

Downwards, 3,801 maunds were sent to Dera Ghazi Khan, compared with only 82 maunds during 1896-97. The river trade with Sindh fell off slightly, maunds 9,002 only having been booked to Sukkur, compared with maunds 9,810 during 1896-97. The railway trade of the year amounted to maunds 71,123, compared with maunds 56,867 during 1896-97, or an increase of maunds 14,256. This trade was with the section of the Sind Sagar branch down to Muzaffargarh and Multan, and thence onwards to stations on the main line in the Bahawalpur State. Salt was also sent to Sukkur in Sindh and Quetta, in Baluchistan. The increase in the trade was general. It may be noted that 3,149 maunds of salt were sent to Ghazi Ghat, opposite Dera Ghazi Khan, probably for consumption in the country trans-Indus. Maunds 924 and maunds 509 were sent to Sukkur and Quetta, respectively. During 1896-97 no salt was booked to Quetta, and only 175 maunds to Sukkur in Sindh. With the opening of the Mari-Attock Railway, I anticipate a further increase in the trade of these quarries. The salt obtained from them is of very superior quality, and with the facilities which the railway will afford, I expect the trade with Attock and marts in that direction will not be inconsiderable.

*Nurpur.*—This is a very small mine, and supplies only local requirements. Clearances during the past year amounted to maunds 4,465, compared with maunds 4,153 during 1896-97, or a slight improvement of 312 maunds.

The following are figures of the quantities of salt sold for consumption within the protected areas of the salt range during the past three years:—

	1895-96	1896-97	1897-98	Mds.
	...	...	...	19,605
	...	...	...	20,195
	...	...	...	20,297

There is a small but progressive increase. This is satisfactory, as there is great temptation to remove salt from the numerous and widely scattered outcrops of rock salt in a most difficult country.

Through traffic receipts  
and expenditure.

21. The following statement shows the through traffic receipts and expenditure of the Division during the past four years:—

	1894-95.	1895-96.	1896-97.	1897-98.
	Rs.	Rs.	Rs.	Rs.
Receipt ... ..	51,752	60,495	57,672	61,727
Expenditure ... ..	37,110	45,876	45,238	45,725
Profit ... ..	14,642	14,619	12,434	16,002

There has been no change in the nature of the receipts. A charge of six pias a maund is paid by all traders who desire to have their salt despatched to them by the department, and the expenditure represents the cost of clearing such salt. An increase of Rs. 4,055 appears under the head of receipts, owing to the quantity of salt indented for under the through traffic system having been larger than during 1896-97. Expenditure is heavier, owing to clearance charges having been paid on maunds 20,02,915 during the year under review, compared with maunds 18,76,132 during 1896-97.

Indus Preventive Line:  
cost of maintaining.

22. The next statement shows, for the past four years, the cost of the Indus Preventive Line, which was maintained for

the purpose of confining the use of Kohat salt to the territories lying on the right bank of the river Indus:—

REVIEW BY SECTIONS.  
PANJAB MINES.

Year.					Fixed establish- ment.	Contingen- cies.	Total.
					Rs.	Rs.	Rs.
1894-95	...	...	...	...	42,571	4,523	47,094
1895-96	...	...	...	...	43,561	5,200	48,761
1896-97	...	...	...	...	39,661	6,546	46,207
1897-98	...	...	...	...	22,823	3,323	26,146

Compared with 1896-97, there was a decrease of Rs. 16,838 under the head of fixed establishment, and of Rs. 3,218 under contingencies. The entire expenditure of the year under review was Rs. 20,056 less than that of 1896-97. This decrease was the result of the reduction which I was enabled to make in the strength of the establishment, and which I described in my annual report of 1896-97, owing to the enhancement of the duty on Kohat salt and the gradual exhaustion of stocks of that salt which had been purchased at the former, and lower, rate of duty.

Towards the end of the year under report, the Government of India decided upon the abolition of the line, and in Department Finance and Commerce letter No. 1030S.R., dated the 1st of March 1898, I received orders to remove the establishment from the river Indus. Coincident with this step, rules under Act XII of 1882 were published by Government, in Department Finance and Commerce Notification No. 1316S.R., dated the 17th March 1898, abolishing the special protective zone on the left bank of the Indus, but maintaining legal restrictions on the transit of Kohat salt *Cis*-Indus in quantities in excess of five seers.

The orders of Government, in regard to the removal of the establishment from the Indus, were carried out by the close of March 1898, and since then the Preventive Line has ceased to exist. I am glad to be able to say that down to the time of writing this report, the information at my disposal leads me to believe that no loss to Government has occurred from this measure, in consequence of the smuggling of Kohat salt into *Cis*-Indus country. Statistics of 1897-98 go to show that during that year the consumption of *Cis*-Indus salt distinctly advanced along the line of that river. The following comparative bookings of *Cis*-Indus salt to the different districts will be of interest in connection with this question:—

District.	Bookings during		Bookings during		Difference.
	1896-97.		1897-98.		
		Mds.		Mds.	
Rawal Pindi	..	79,813	95,213		+15,400
Peshawar	...	...	260		+260
Kohat	...	521	1,435		+914
Bannu	...	1,713	4,232		+2,519
Dera Ismail Khan	...	18,040	22,858		+4,818
Dera Ghazi Khan	...	82	3,801		+3,719

*Rawal Pindi district.*—The line of country dealt with extends from Hassan Abdal down to Makhad on the Indus, below the Khushalgarh railway terminus. From Hassan Abdal, the trade largely supplies the Hazara district, and some salt is also exported to Kashmir. During the year, *Cis*-Indus salt entirely occupied the Amb jaghir, to the exclusion of Kohat salt, and crossed the Indus into independent territory at Torbela. Southwards, *Cis*-Indus salt held its own along the line of the Indus in this district.

REVIEW BY SECTIONS.  
PANJAB MINES.

*Peshawar district.*—The exports were to Khairabad, just opposite Attock, and to Naoshera and Jehangira. This is quite a new trade on the right bank of the Indus.

*Kohat district.*—The bookings were to Khushalgarh on the right bank of the Indus, opposite the railway terminus. The increase in the trade shows that *Cis-Indus* salt pushed itself well across the river at this point.

*Bannu district.*—The bookings were to marts on the left bank of the Indus. The increase in the trade was large, and it appears likely that some of the salt crossed the river and passed into the country on the right bank.

*Dera Ismail Khan district.*—Here also the bookings were to marts on the left bank of the Indus, with the exception of a small trade with Dera Ismail Khan itself. The large increase goes to show that *Cis-Indus* salt held the country on the left bank of the river very strongly, and probably passed over to the right bank to some extent. Bookings to Dera Ismail Khan itself increased from 334 maunds in 1896-97 to 964 maunds during the past year.

*Dera Ghazi Khan district.*—The large increase in the trade is a very satisfactory indication, and shows that *Cis-Indus* salt crossed the river at this point in considerable quantity. Besides this trade, 3,149 maunds of *Cis-Indus* salt were consigned to the Ghazi Ghat terminus of the railway, in the Muzaffargarh district, and just opposite the Dera Ghazi Khan mart. This quantity probably also passed over the river for consumption in the country on the right bank. My latest information shows that the southern portion of this district, comprised within the Rajanpur sub-division, has been completely occupied by *Cis-Indus* salt, to the exclusion of the salt of the Kohat mines, which was formerly in general consumption in that direction.

Though these indications are favourable, yet there is still a difference, ranging from 12 to 15 annas a maund, in the prices of Kohat and *Cis-Indus* salt along the line of the Indus, from Attock to the north down to Isakhel in the Dera Ismail Khan district to the south. These differences constitute a danger to the revenue, and it will be my duty to watch this section of the river carefully, in order to detect any smuggling which may at any time be resorted to.

KOHAT MINES.  
Receipts, charges, and  
net revenue.

23. The receipts and charges and the net revenue of the Kohat salt mines for the past four years will be found in the following table:—

Year.	Receipts.		Charges.			Net revenue.
	Quantity of salt sold.	Collections.	Establishment and contingencies.	Percentage to maliks, &c.	Total.	
	Mds.	Rs.	Rs.	Rs.	Rs.	Rs.
1894-95	5,91,427	2,32,003	37,841	23,144	60,985	1,71,018
1895-96	7,85,170	3,08,100	39,004	31,948	70,952	2,37,218
1896-97	4,26,170	1,25,461	55,336	37,929	93,265	1,02,196
1897-98	3,22,404	5,05,784	80,354	39,465	1,19,829	3,85,955

The sales of the year under review were much below those of the three preceding yearly periods. The trade of 1894-95, at the eight anna rate of duty, was normal. During 1895-96

it became known to traders, carriers and others that an increase in the duty was in contemplation, a rush was made to lay in stocks, and sales were abnormally heavy in consequence. Early in 1896-97, the Government of India decided upon raising the duty from eight annas to two rupees a Lahori maund of  $102\frac{17}{28}$  lbs. and the measure was carried out with effect from the 13th July 1896, a month's notice of the enhancement being given. The rush for salt, which commenced during 1895-96, continued during 1896-97, down to the date on which the higher rate of duty took effect. Maunds 4,95,432 were disposed of at the eight anna rate of duty between the 1st April and 12th July 1896. From the 13th July 1896 to the end of the year 1896-97, the trade of the mines was practically at a stand-still, as only 738 maunds of salt were issued at the higher rate of duty of two rupees a Lahori maund. Trade gradually revived during the year under report, but was unable to return entirely to its normal course. The frontier war not only closed the markets beyond the border for a time, but caused a scarcity of carriage; the stocks of salt purchased at the lower rate of duty, and stored in the country *Trans-Indus*, were not inconsiderable; and to a certain extent Kohat salt was displaced along the line of the Indus river by *Cis-Indus* salt. These remarks show that the past three years have been abnormal ones. Comparing them with the three years immediately preceding, the figures of sales work out as follows:—

1892-93	...	...	...	...	...	Maunds.
1893-94	...	...	...	...	...	6,23,981
1894-95	...	...	...	...	...	5,90,285
					...	5,91,497
				Average	...	6,01,921
1895-96	...	...	...	...	...	7,85,470
1896-97	...	...	...	...	...	4,96,170
1897-98	...	...	...	...	...	3,22,104
				Average	...	5,34,681

Taking the normal sales at about six lakhs of maunds annually, the average of the past three years falls below that quantity by about 70,000 maunds. Taking into consideration that the trade was without doubt impeded by the war on the frontier, the existence of old stocks and the advance of *Cis-Indus* salt along the line of the river Indus, I am of opinion that the sales of the year under report may be considered satisfactory. Stocks of old salt have now become exhausted to a very great extent, and the only factors which may affect the trade of the current year are, economy on the part of consumers in the use of an article of higher value than in the past, and the advance in the consumption of *Cis-Indus* salt along the line of the river Indus. About 70,000 maunds of Kohat salt have issued during the first three months of the current year, compared with about 89,000 maunds during the same period of 1894-95, the last normal year. The trade of these mines is most brisk during the winter, and it is therefore as yet too early to submit a forecast of the sales of 1898-99.

The increase in the revenue of the mines during the past year was of course entirely due to salt having issued at the higher rate of duty.

The charges during the year under report amounted to Rs. 1,19,829, compared with Rs. 93,265 during 1896-97, or an increase of Rs. 26,564. This was owing to the addition of 4 officers and 182 men made to the establishment during 1896-97 having had full effect upon the charges of the past year, and to an increase in the percentage paid to maliks and others. The

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## REVIEW BY SECTIONS. KOHAT MINES.

net revenue of the mines for the past year exceeds that of 1896-97 by Rs. 2,83,759, though the quantity of salt issued was smaller. This is of course due to the whole of the salt sold during 1897-98 having paid the higher rate of duty, while that duty was levied upon only 738 maunds during 1896-97.

I may mention here that during the current year, the Government of India have decided upon the transfer of the Kohat mines to the charge of this Department. This decision is embodied in letter No. 2462S.R., dated the 1st June, 1898, from the Government of India, Department of Finance and Commerce, to the Government of the Panjáb.

The Deputy Commissioner of Kohat has been gazetted as *ex officio* a Deputy Commissioner of Salt Revenue, and will correspond directly with me on all matters connected with the administration of the mines.

Issues of salt from the  
different mines.

24. The issues of salt from the different mines in the Kohat district during the past four years are shown in the table below :—

Name of Depôt.	1894-95.	1895-96.	1896-97.	1897-98.
	Mds.	Mds.	Mds.	Mds.
Jatta ... ..	2,41,332	3,10,020	2,04,834	1,26,766
Malgin ... ..	1,44,761	1,62,685	1,34,269	94,099
Narri ... ..	34,102	29,399	34,021	14,109
Kharrak ... ..	62,842	1,34,096	40,325	32,718
Bahadur Khel ... ..	1,08,367	1,49,270	82,721	54,720
Total ... ..	5,91,497	7,85,470	4,96,170	3,22,404

The decrease in the trade of the year under report, the causes of which have been dealt with in the preceding paragraph, affected all of the mines adversely.

*Jatta.*—The quarries are the most important of the group. Compared with 1896-97, there was a decrease in issues of 78,076 maunds. The trade routes followed by carriers of salt from Jatta are, (1) *viâ* Teri into the Kurram valley, (2) *viâ* Mamikhel to Hangu and Thal, (3) *viâ* Lachi to Kohat and to Peshawar and beyond *viâ* the Khyber Pass, and (4) along the Khushalgarh road to Peshawar, Swat, and Buner.

*Malgin.*—These quarries are the next in importance. Compared with 1896-97, there was a decrease of 40,170 maunds in the trade of the past year. The principal market is Peshawar, the trade route followed being that through the Kohat Pass. This line of traffic supplies the Jowaki Afridis. The second trade route follows the Kohra road. By this line, Peshawar is within six marches of Malgin, *viâ* Nilab and Naoshera ; the trade of Swat, Buner, Agror, and Bajaur striking off to the northward at Naoshera.

*Narri.*—Under the orders of the Panjáb Government, these quarries were permanently closed with effect from the 1st of March 1898. The sales of the year were less than those of 1896-97 by 19,912 maunds.

*Kharrak.*—The sales of the past year fell below those of 1896-97 by only 7,607 maunds—a comparatively good result. These quarries are resorted to by several clans of Powindahs, who distribute salt over the Derajat during the winter, and convey consignments into Afghanistan on the approach of summer, the trade route running *viâ* Tonk.

*Bahadur Khel.*—The sales here were less than those of 1896-97 by 28,001 maunds. These quarries lie within

about five miles of the Waziristan border, and the trade is principally with localities across the border, in Afghanistan, Waziristan, and the Afridi Tirah.

REVIEW BY SECTIONS.  
KOHAT MINES.

Salt issues from all the quarries in rough irregular fragments, but at Bahadur Khel and Kharrak rectangular blocks are also in demand. These latter are from five to six inches in thickness and from a foot upwards in length and breadth, and they weigh from 15 seers to one maund. This shape facilitates packing on animals for transport over rough mountain roads.

The bookings of the trade of the past year were as follows:—

	Mds.
To Peshawar	1,12,644
To Afghanistan and Waziristan	79,619
To Swat and Buner	76,967
To Kohat district	10,623
To Bannu district	13,443
To the Derajat	25,824
Local sales	3,296
Total	3,22,404

Of the salt booked to marts in British territory, a large proportion was probably exported across the border eventually, particularly in the case of the mart of Peshawar.

Pack animals are exclusively used for the removal of salt from the Kohat mines. The following are comparative statistics of the animals employed during the past two years:—

	1896-97	1897-98.
Camels...	37,693	35,287
Bullocks	65,157	30,512
Donkeys	67,329	29,706
Total	1,70,179	95,505

As I have already remarked, there was scarcity of carriage during the past year owing to the operations on the frontier.

25. The Kohat mines are situate not far from the border, and owing to the disturbances on the frontier, the officers and men passed through a most trying time during the year under report. One guard post was rushed at night by the tribesmen, and a havildar and a sepoy were killed. Efforts were made by the Mullahs to seduce the men from their duty, but without effect. The extensive outcrops of rock salt, scattered over a hilly and difficult country, were efficiently guarded, and all of the work at the mines was carried on uninterruptedly. The Deputy Commissioner of Kohat has informed me that the successful administration of the mines during a difficult year, was owing to the capacity shown by Mr. McGowan, Assistant Commissioner, and Mr. Carter, Superintendent, and the devotion to duty evinced by their subordinates.

Administration of the  
mines.  
Efficiency of establish-  
ment.

26. The following statement shows the transactions of the past four years at the salt mines in the Mandi State:—

MANDI MINES.  
Receipts, charges, and net  
revenue.

Year.	Total amount realized at Rs. 1-2-0 per maund.	Due to British Government at two-thirds of duty, &c., at five annas per maund.	Balance due to Btja.	Charges incurred by the British Government.			Net revenue derived by the British Government.
				Establishment main- tained at the mines.	Contingencies.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1894-95	1,44,857	40,246	1,04,641	8,561	825	9,376	30,670
1895-96	1,54,498	42,916	1,11,582	8,882	800	9,682	33,234
1896-97	1,41,031	39,175	1,01,856	6,389	1,065	7,454	31,721
1897-98	1,40,212	38,948	1,01,264	6,640	1,037	7,677	31,271

REVIEW BY SECTIONS.  
MANDI MINES.

The realizations of the year under report fall below those of 1896-97 by Rs. 819, and are the lowest recorded above. This decrease was owing to less of the salt of these mines having been consumed in British territory.

A charge of Re. 1-2-0 a maund is levied on all salt issued. This charge includes price and duty, and it is divided in the proportion of thirteen annas to the Rájá of Mandi and five annas to the British Government. Out of the total receipts of Rs. 1,40,212, the share of the Rájá amounted to Rs. 1,01,264 and that of the British Government to Rs. 38,948. This last item was charged with the cost of the departmental establishment at the mines, leaving a net revenue of Rs. 31,271.

Under the head of charges there was a slight increase of Rs. 223 during the year, as compared with 1896-97. This was owing to a Superintendent of higher rank having been posted to the mines during the latter half of the past year.

Detail of sales and distribution of Mandi salt.

27. The statement below shows the quantities of salt sold at the Mandi mines during the past four years, and the consignments to British territory and to Native States :—

Year.				For export to British territory.	For sale in Native States.	Total.
				Mds.	Mds.	Mds.
1894-95	...	...	...	74,080	54,700	1,28,789
1895-96	...	...	...	83,174	54,157	1,37,331
1896-97	...	...	...	75,316	50,945	1,25,361
1897-98	...	...	...	71,352	53,280	1,24,632

The total sales of the year are the lowest recorded in the table. They fall below those of 1896-97 by maunds 729, and are less than those of 1895-96 and 1894-95 by maunds 12,699 and maunds 4,157, respectively.

Appendix VI of this report shows the distribution of Mandi mines salt to areas of consumption in British territory and Native States.

Of the bookings to British territory, aggregating maunds 71,352, maunds 53,137 were consigned to Kangra, maunds 16,861 to Kulu, and maunds 1,354 to the Simla district. There was a decrease in the trade of maunds 2,818 with Kangra, of maunds 1,134 with Kulu, and of maunds 12 with Simla—a total falling off of maunds 3,964. The Kangra district was supplied with maunds 48,612 from the mine at Guma, and maunds 4,525 from the more distant one at Drang. Kulu obtained maunds 15,846 from Drang, and only 1,015 maunds from Guma. The trade with the Simla district, maunds 1,354, was supplied from Drang. The trade with Simla has shown a tendency to decrease for some time past, owing probably to the advance of Panjáb mines rock salt into the hills from the Kalka terminus of the Dehli-Umballa-Kalka Railway. The falling off in the trade with Kangra and Kulu is said to have been owing to the lateness of the harvest preventing head-load men from visiting the mines, and to the grain trade with Kulu being slack in consequence of the prices prevailing not yielding a margin of profit.

The bookings to Native States aggregated 53,280 maunds. Of this quantity, 14,060 maunds were supplied from Guma and

maunds 39,220 from Drang. The following figures show the trade with the different States :—

REVIEW BY SECTIONS.  
MANDI MINES.

States.				Sales of 1896-97.	Sales of 1897-98.	Difference.
				Mds.	Mds.	Mds.
Mandi	...	...	...	34,909	37,035	+ 2,126
Suket	...	...	...	7,571	7,588	+14
Bilaspur	...	...	...	3,750	3,920	+170
Rampur Bishahr	...	...	...	3,692	4,646	+954
Chamba	...	...	...	120	91	-29
Total				60,045	63,281	+3,235

The increase in the trade with Mandi was large. Probably stocks were laid in for future use. The larger exports to Rampur Bishahr are said to have been owing to the passes having been open longer than usual in consequence of a mild winter. Goats are principally used for the transport of salt into this State. The trade with Chamba has always been small and is declining. This is no doubt due to advancing consumption of rock salt from the Panjáb Mines Division.

There is no wheeled traffic at the Mandi mines. The salt issued is removed on pack animals or in head-loads. The following are figures of the carriage employed :—

Camels	...	...	...	...	...	...	619
Mules	...	...	...	...	...	...	7,605
Bullocks	...	...	...	...	...	...	32,816
Ponies	...	...	...	...	...	...	7,785
Donkeys	...	...	...	...	...	...	1,889
Goats	...	...	...	...	...	...	9,722
Head-loads	...	...	...	...	...	...	32,772

Of the total of 1,24,632 maunds of salt sold, 63,687 maunds issued from the Guma quarry and 60,945 from that of Drang. The Guma quarry was worked fairly well during the year. Landslips occurred at intervals and stopped work, but not for more than a couple of days at a time. The quarry forms a section of the bed of the gorge, and the supply of salt appears ample. At Drang, salt is obtained under greater difficulties than at Guma. It is quarried from a level below the bed of the gorge, and during the year work was so impeded by water that the trade could not be supplied regularly. The Department is not responsible for the working of these quarries, and any decrease in the trade causes no loss to Government, as any deficiency in the supply is met by rock salt from the Panjáb mines. The quarries were visited several times during the year by the Superintendent of the Rája of Mandi.

Quarries worked.

28. The statement below shows the gross receipts, the fixed and contingent charges, and the net revenue of the Sultanpur Salt Works during the past and three preceding years :—

SULTANPUR SALT  
WORKS.  
Receipts, charges, and net  
revenue.

Year.	Gross receipts.				Charges.			Net revenue.
	Excise duty.	Hakimi cess.	Miscella- neous.	Total.	Fixed.	Conti- gent.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1894-95 ...	2,36,535	8,387	689	2,45,510	16,104	1,924	18,028	2,27,482
1895-96 ...	2,70,332	7,861	58	2,78,251	15,505	2,551	18,056	2,60,195
1896-97 ...	2,73,693	1,748	13	2,81,464	16,071	3,237	19,308	2,62,156
1897-98 ...	2,00,074	1,240	17	2,01,340	15,600	1,743	17,343	1,83,998



REVIEW BY SECTIONS.  
SULTANPUR SALT  
WORKS.

Down to the end of 1896-97, the revenue of these works was steadily progressive, and it was hoped that this improvement would continue. During the year under review, however, there was a large decrease of Rs. 80,114 compared with 1896-97, and the figures are below those of 1895-96 and 1894-95 also, by Rs. 76,914 and Rs. 44,170 respectively. This decrease in receipts has of course been due to a smaller quantity of salt having been excised during the past year, and the causes which have led to this result will be fully explained in the next paragraph. As regards the details, under the head of receipts, it may be explained that the falling off in the revenue derived from the Hakimi cess during 1896-97 and 1897-98, as compared with 1894-95 and 1895-96, is owing to the rate of the cess having been reduced from varying amounts (one anna and nine pies to six pies) to one uniform charge of three pies a maund with effect from the 7th of January 1896.

Compared with 1896-97, there was a decrease of Rs. 1,956 in the expenditure incurred at the works during the year. This difference was owing, partly to ordinary minor fluctuations under fixed and contingent charges, and also to Pachotra payments under the latter head having been smaller than usual owing to the reduction of the Hakimi cess.

Stocks, manufacture, and  
sales.

29. Statistics of stocks, manufacture and sales at the Sultanpur Salt Works during the past four years will be found in the following statement:—

Year.			Stock at the commence- ment of the year.	Manufacture during the year.	Sold dur- ing the year.	Stock in hand at the close of the year.
			Mds.	Mds.	Mds.	Mds.
1894-95	...	...	537	1,00,485	94,614	6,408
1895-96	...	...	6,408	1,19,392	1,08,133	17,667
1896-97	...	...	17,667	1,19,494	1,11,877	25,284
1897-98	...	...	25,284	68,485	(a) 80,093	13,676

The quantity of salt manufactured during the year fell below the outturn of 1896-97 by 51,009 maunds, and is the lowest recorded in the table. The past year was a most unfavourable one for these salt works. During the hot season, when manufacture is always most brisk, storms occurred very frequently, and salt lying in the evaporation pans was injured and greatly depreciated in value by dust being deposited upon it. Besides this, manufacture was impeded from the very commencement of the year. Owing to scarcity and high prices prevailing all over the country when the time for manufacture arrived, capital which used to be invested in the works was diverted to the grain trade. The tightness of the money market accentuated this difficulty and advances of funds were hard to obtain. Added to this, there were persistent rumours that the branch railway to Farakhnagar was about to be closed, and men with capital were most reluctant to lay it out on the salt works. This caution was not uncalled for, as at the beginning of December 1897, notice was issued by the Bombay, Baroda and Central India Railway to the effect that the Farakhnagar branch would be closed for traffic from the 1st January 1898. There was then a stock of about 30,000 maunds of salt lying on the works, which could not be disposed of and removed at such short notice, and which was practically

(a) Includes wastage maunds 63.

valueless without the facilities for removal to areas of consumption afforded by the railway. His Honour the Lieutenant-Governor of the Panjáb visited the town of Farakhnagar at about this time, and in consequence of action taken by His Honour, the notice of closure was withdrawn and a decision on the question has been postponed until the 30th of June 1900. Though this is satisfactory in the interests of the works, yet the industry has received a shock from which it may be difficult for it to recover. Down to the close of 1896-97, it was slowly, but steadily, progressive. During the year under review there was a sudden decadence, only 38 factories having worked compared with 48 during 1896-97.

REVIEW BY SECTIONS.  
SULTANPUR SALT  
WORKS.

Maunds 80,030 of salt were excised from the works during the year under report, compared with maunds 1,11,877 during 1896-97, or a very large decrease of maunds 31,847. The causes which affected manufacture prejudicially had a similar effect upon sales. To a great extent, purchases of salt are made on the principle of time bargains. Manufacturers and traders enter into contracts under which quantities of salt are supplied within certain periods. During the past year, the persistent rumours of the closure of the railway resulted in caution on the part of traders in their dealings in Sultanpuri salt. As I have already mentioned, notice of closure was actually given with a very short period of grace, and though this was ultimately withdrawn, the circumstance had full effect on the trade. Taking everything into consideration, I think the trade of the year was fairly good. It has received a shock, and it remains to be seen whether confidence will be re-established.

30. The following statement shows the prices at which salt was sold at the Sultanpur Works during the past year, as compared with 1896-97:—

Selling price at the works.

Year.	One anna to under three	Three to under four.	Four to under five.	Five to under six.	Six to under eight.	Total.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
1896-97 ...	27,896	30,581	52,935	465	...	1,11,877
1897-98 ...	27,821	20,919	23,905	810	1,575	80,030

At the lowest range of prices, the sales of both years are about the same. The decrease which has occurred in quantities sold at from three to five annas a maund has followed the falling off in the trade. This decrease shows the effect which the contemplated closure of the railway had upon the trade of the principal salt factories. The salt sold at the lowest rates was the produce of the clusters of works at Zahidpur and Sadrana. The trade of the former is principally road traffic, while the latter is situated close to the main line of the Rájputána-Malwa Railway. Owing to this, these works would be less affected than others by the closure of the branch railway, and their salt retained its value fairly well during the year. The best salt is produced at the Mubarikpur and Sultanpur clusters, and the quantity manufactured is large. These works are entirely dependent upon the Farakhnagar railway for carriage, and the contemplated closure of that branch caused a fall in the value of the salt manufactured upon them.

REVIEW BY SECTIONS.  
SULTANPUR SALT  
WORKS.Distribution of trade by  
rail and road.

31. The statement below shows the distribution of the trade of the Sultanpur Salt Works during the past year and the three preceding it:—

Distribution of exports.	1894-95.	1895-96.	1896-97.	1897-98.
<i>Railway Traffic.</i>	Mds.	Mds.	Mds.	Mds.
To Delhi ... ..	1,840	100	197	...
North-Western Railway ... ..	6,881	7,174	6,464	6,345
East Indian Railway ... ..	69,889	78,188	81,463	52,814
Rohilkhand and Kumaun Railway ... ..	11,586	9,871	12,199	14,041
Oudh and Rohilkhand Railway ... ..	1,200	270	715	793
Lucknow-Rae Bareli-Benares Railway ... ..	...	1,530	...	...
Resari-Ferozepur Branch, Rájputána-Malwa Railway.	...	15	...	...
Total ...	91,396	97,148	1,01,038	73,993
<i>Road Traffic.</i>				
To Panjáb ... ..	1,172	1,456	2,644	1,395
„ North-Western Provinces ... ..	2,550	9,525	7,694	3,504
Total ...	3,722	10,981	10,338	4,899
GRAND TOTAL ...	95,118	1,08,129	1,11,376	78,892

There were no bookings to Delhi during the year. Former consignments were not for local consumption, but were re-booked onwards as the exigencies of the market demanded. The trade has now steadied, and salt is sent direct to areas of consumption.

*North-Western Railway.*—There was a slight falling off in the trade of this line, due to ordinary fluctuations of traffic; 425 maunds were sent to Meerut, for use in the manufacture of soap by the North-West Soap Company, and 5,920 maunds were consigned to Saharánpur. The whole of this latter quantity was sent to Dehra Dún for consumption in that district and on the hills north of Dehra. This trade is very steady, and appears to be likely to continue so.

*East Indian Railway.*—The salt carried over this line was all consigned to Cawnpore. The figures show a decrease of 28,649 in the trade of the past year, as compared with 1896-97. Sultanpuri salt is not consumed at Cawnpore or in any part of the country west of the river Ganges. It is first booked to Cawnpore in order that a specially favourable railway rate to that mart may be taken advantage of, and is thence distributed to areas of consumption in Oudh. The decrease which occurred in the trade was partly owing to the scarcity in parts of the country where the salt is consumed, and also to the causes explained in the paragraph immediately preceding which affected the trade generally.

*Rohilkhand-Kumaun Railway.*—The traffic on this line shows a satisfactory increase. Salt was booked to five stations. The principal trade was with Pilibhít, whence the salt is exported to the Tarai country and to the foothills of the Himalayas. The trade with this line promises to continue steady.

*Lucknow-Rae Bareli-Benares-Railway.*—There have been no direct bookings over this line during the past two years. With a view to taking advantage of special railway rates, the traders find it more profitable to book first to Cawnpore and then to re-book to Rae Bareli.

*Road traffic.*—This decreased largely both in the Panjáb and the North-Western Provinces. The Panjáb trade was with the districts of Gurgaon, Rohtak, and Delhi, and it fell off generally. The trade of the North-Western Provinces was with the Moradabad, Bijnor, and Pilibhit districts, and the decrease in the traffic was with the first two of these. The falling off is attributable to the scarcity which prevailed.

32. The following statement shows the gross realizations, the fixed and contingent charges, and the net revenue of the Sambhar Lake Division during the past four years :—

REVIEW BY SECTIONS.  
SULTANPUR SALT  
WORKS.

SAMBHAR.  
Receipts, charges, and net  
revenue.

Year.	Gross realizations.				Charges.			
	Excise duty on salt.	Sale price.	Miscellaneous.	Total.	Fixed.	Contingent.	Total.	Net revenue.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1894-95	1,00,54,015	10,97,448	32,773	1,11,84,266	1,23,556	2,55,232	3,78,788	1,08,05,478
1895-96	92,89,435	9,28,943	14,931	1,02,33,309	1,30,909	2,21,471	3,52,380	98,80,929
1896-97	98,15,523	9,79,304	19,013	1,08,13,842	1,15,630	2,06,282	3,21,912	1,04,91,930
1897-98	1,02,46,099	10,23,860	27,506	1,12,99,465	1,07,963	1,39,182	2,47,145	1,10,52,320

The gross revenue of the year is the highest recorded in the table. It exceeds that of 1896-97 by Rs. 4,85,623, and the figures of 1895-96 and 1894-95 by Rs. 10,66,156 and Rs. 1,15,199, respectively. This increase occurred under all heads of revenue : Rs. 4,30,574 under excise duty on salt, Rs. 46,556 under sale price, and Rs. 8,493 under miscellaneous collections. It was of course the result of a larger quantity of salt having been sold, and the causes which led to this will be dealt with when sales are being commented upon.

Increase in gross realizations and net revenue explained.

Compared with 1896-97, the total charges for the year show a decrease of Rs. 74,767, and are the lowest recorded in the table.

There was a decrease of Rs. 7,667 in the expenditure under fixed charges. Apart from minor savings, which do not call for remark, this difference was owing to the Assistant Commissioner having been on long leave during a part of the year, and the officiating officer having drawn a smaller salary, to Superintendents of lower grades having been posted to the Division, and to the temporary establishment having been maintained at a lesser strength.

Difference in fixed

Under contingencies there was a decrease during the year of Rs. 67,100. The principal items which contributed to this result were—

and in contingent charge explained.

- (1) Rs. 46,937 under the head of manufacture of salt, due to smaller production during the year ; (2) Rs. 14,556 under through traffic charges, owing to the expenditure of 1896-97 having been abnormally high in connection with the cost of a shed for traders' bags ; (3) Rs. 2,934 under petty construction and repairs of buildings, due to postponement of building work ; and (4) Rs. 2,254 under compensation for dearness of food-grain to subordinates, in consequence of more favourable prices of grain ruling during the year.

Deducting charges, the net revenue of the Division during the year under review amounted to Rs. 1,10,52,320, compared with Rs. 1,04,91,930 in 1896-97, or an increase of Rs. 5,60,390.

REVIEW BY SECTIONS.  
SAMBHAR.  
Manufacture and sales.

33. The statement below shows the quantities of salt manufactured and sold during each of the past ten years ending with 1897-98:—

Year.					Quantity of salt manufactured.	Quantity of salt sold.
					Mds.	Mds.
1888-89	...	...	...	...	60,48,159	35,96,049
1889-90	...	...	...	...	20,42,200	38,34,805
1890-91	...	...	...	...	58,93,453	42,82,236
1891-92	...	...	...	...	34,42,109	45,67,912
1892-93	...	...	...	...	90,666	51,03,601
1893-94	...	...	...	...	44,51,154	27,95,141
1894-95	...	...	...	...	70,35,016	40,31,618
1895-96	...	...	...	...	51,29,304	37,15,774
1896-97	...	...	...	...	30,85,846	39,31,210
1897-98	...	...	...	...	18,31,629	41,03,440

The past year was a very poor one for manufacture. The rainfall was deficient, the brine was inferior, and other conditions, which will be described further on, were most unfavourable. The quantity of salt obtained during 1896-97 was small, but the outturn of the year under review is less than the figures of that period by maunds 12,58,217. Taking the ten years of the table together, the average yearly outturn amounts to maunds 39,05,353, and this exceeds the quantity produced during the past year by maunds 20,73,724. Full particulars on this important subject will be found in the paragraphs which follow.

Sales were very satisfactory. The average of the ten years amounts to maunds 39,96,778, and the figures of the past year exceed this quantity by maunds 1,06,662; while as compared with 1896-97, an excess appears of maunds 1,72,230.

34. Statistics of the rainfall at the Sambhar Lake during the ten years which ended with 1897-98, appear in the following table:—

Year.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Total.	Number of rainy days.
1888-89	0.47	...	0.23	4.39	14.19	0.44	0.17	0.44	...	0.34	1.26	0.34	22.27	48
1889-90	0.21	1.53	2.68	5.07	12.65	...	0.01	...	...	...	...	0.54	22.69	50
1890-91	...	...	0.90	3.85	4.11	1.15	0.18	0.01	0.31	0.97	...	0.66	12.09	45
1891-92	0.04	0.25	0.70	3.83	3.79	2.10	0.33	...	...	0.83	0.02	...	11.89	47
1892-93	...	0.60	1.63	10.50	12.24	13.98	...	...	0.09	0.86	0.54	0.31	40.81	69
1893-94	...	2.22	2.34	10.27	6.65	3.83	0.02	1.75	0.12	0.48	...	...	27.68	60
1894-95	...	1.75	3.63	8.02	6.13	2.97	...	...	3.64	0.67	0.06	0.35	27.22	70
1895-96	0.57	0.06	1.27	4.87	8.30	0.34	...	...	0.10	0.04	0.06	0.02	15.63	41
1896-97	...	0.94	2.60	4.74	2.40	2.95	0.20	1.17	0.12	...	0.03	0.03	15.18	44
1897-98	0.15	0.14	0.07	6.21	6.10	1.29	0.45	0.06	0.06	0.02	0.53	0.06	14.96	49

In my last annual report, I showed that the rainfall of 1896-97 was very unfavourable to manufacture. That of the past year was still more so. Only 13.60 inches of rain fell during the three monsoon months of July, August, and September 1897, and the latter half of the year, the cold season, was practically rainless and very dry. The rain which fell was so distributed over the surrounding country, that the two rivers which flow into the Lake were never in full flood, and they

contributed but little water to form the supply of brine which was needed. The monsoon rains of 1895 and 1896 were exceptionally light and badly distributed, the Lake was very dry during the first three months of the year under review, and the effect of the deficiency in the fall of the monsoon of 1897 was therefore greater than it would otherwise have been under more favourable antecedent circumstances. And not only was the accumulation of water in the Lake small, but the dry weather which followed the monsoon caused it to evaporate with great rapidity.

REVIEW BY SECTIONS.  
SAMBHAR.

For the production of good salt in large quantities, it is necessary, not only that the rainfall should be good, but that its distribution over the surrounding country should be such as to cause the rivers to come down in flood and so fill the Lake to a sufficient depth. It is also necessary for the formation of good brine, that the water so accumulated should be agitated by strong winds, in view to the salt crust, which forms on the bed of the lake in a dry season, being dissolved, and to chloride of sodium being taken up in solution from the surface stratum of the lake bed, in the mud of which it is present in mechanical admixture.

All of these favourable conditions were absent during the past year, which was, I regret to say, one of the most unfavourable on record.

35. The statement below shows the quantities of the different descriptions of salt which were manufactured at the Sambhar Lake during the past and three preceding years:—

Detail of varieties of salt  
manufactured.

Method of manufacture.	1894-95.	1895-96.	1896-97.	1897-98.
	Mds.	Mds.	Mds.	Mds.
Walled enclosures ...	41,58,475	35,82,513	26,46,434	16,00,126
In pans on the lake edge ...	22,15,918	9,26,514	4,00,256	1,81,009
Lake bed extraction ...	6,60,623	6,20,217	43,156	47,494
Total ...	70,35,016	51,29,304	30,89,846	18,31,629

The results of the manufacture of the past year are most unsatisfactory. The figures showing the total quantity of salt produced are the lowest of the four yearly periods. They fall below those of 1896-97, which was considered a bad year, by maunds 12,58,217, and are less than those of 1895-96 and 1894-95 by maunds 32,97,675 and maunds 52,03,387, respectively. In dealing with rainfall statistics in the last preceding paragraph, I sketched briefly the unfavourable conditions which gave rise to these unsatisfactory results. I will now enter into further details on the subject.

During the first three months of the year, not only was the lake bed perfectly dry—a result of the deficiency in the monsoon rains of 1895 and 1896,—but there was very little of the salt crust which usually forms upon it under such circumstances. To the eastward of the railway embankment which crosses the bed of the lake between Sambhar and Gudha, salt crust existed for a distance of about a mile, and to the west of the embankment for about four or five miles, in both cases generally far from either shore. At the Nawa end of the lake, the crust existed only towards the shore under Nawa. This showed a great deficiency in the visible supply of salt. It seems probable that owing to the drought and the consequent lowering of the spring level, the brine which accumulated during the monsoon of 1896 sank to a great extent into the mud of the Lake bed, and carried with it the saline matter it held in

REVIEW BY SECTIONS.  
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solution, instead of evaporating and leaving a surface crust of salt as usual.

The monsoon rains commenced during July 1897, and by the close of that month a total fall of 6.21 inches had been recorded. Rain occurred on twelve days of the month, and the fall exceeded an inch on two dates only. At the end of July, the accumulation of water in the Lake was small. West of the railway embankment, it was only from five to seven inches in depth, though westerly winds were blowing and banking it up against the railway; and the salt crust in some of the walled enclosures, the formation of the previous year, when the salt hardened and so could not be extracted, had not dissolved. There was no rain during the first week of August, and as it appeared likely that the monsoon fall would be deficient, and the density of the Lake had risen to 10° Beaumé, the pans of walled enclosure No. 1 at Sambhar were filled with brine. An attempt was made at the same time to fill the pans of the walled enclosure at Nawa, but the quantity of brine at that end of the Lake was not sufficiently large for the purpose. Between the 1st and 13th of August, only 48 cents of rain fell, the density of brine in the Lake stood at from 10° to 13° Beaumé, and in order that no time should be lost, arrangements were at once made to charge the pans of all the walled enclosures at Sambhar. On the 15th and 16th of August, 129 cents of rain fell, the density of the Lake was reduced to 3° Beaumé, and as some brine had accumulated at its western end, the charging of the walled enclosure at Nawa was commenced. At the end of August, the density of the Lake was 4° Beaumé, and the total rainfall of the month amounted to only 6.10 inches. Rain occurred on fifteen dates, on only two of which was more than one inch registered. The fall was in the nature of light local showers. By the beginning of September, the monsoon was practically over. Some light showers, aggregating 129 cents, fell on six dates of that month, but these had no effect upon the Lake.

During September, strenuous efforts were made to utilize fully the small quantity of brine in the Lake. The charging of the walled enclosures was carried on without intermission, and by the close of the month the pans of all of them had been filled to their greatest capacity. Enclosures were made in the bed of the Lake, damming up the brine, for the production of what may be termed spontaneous salt, and the quantity of brine in these, at the time of their construction, would, under ordinary circumstances, have yielded a fairly large outturn. And arrangements were made for the construction along the Lake edge of 3,223 shallow evaporation pans, of which 1,489 had been completed and 651 charged with brine by the end of the month.

Everything that was possible was done. The capacity for production of our walled enclosures is so great, that even though the monsoon rainfall had been deficient, I hoped to be able to manufacture a fairly large quantity of salt, larger in fact than the outturn of 1896-97, and this would have been effected if the brine had been as rich in chloride of sodium as it is in ordinary years. But the storms and high winds, which occur usually at the Lake were markedly absent during the season under review, and the result was that the water which accumulated in the basin was not sufficiently agitated to allow of chloride of sodium being taken up in solution in the quantity required for the formation of good salt brine. As evaporation proceeded in our works, we found that the densities recorded

had been the result of the solution of inferior salts, and that the brine we had collected was distinctly inferior in its capacity for the production of common salt. This in itself would have been sufficiently disappointing, but our difficulties were intensified by the formation in the brine of a gelatinous vegetable substance of a greenish tint in immense quantities. Minute forms of vegetation, constituting large masses in the aggregate, always appear in the Lake brine when its density is low; but as its specific gravity increases, the vegetation of ordinary years is destroyed and floats upon the surface, and can be easily removed from our works, the concentrated salt brine becoming perfectly limpid. The vegetation which appeared during the past year was not of this description, and we have never before had any experience of it. In its glutinous form it was in intimate admixture with the whole mass of brine, both in the Lake and on our works, the concentration of the brine did not affect it materially, and the consequence was that it impeded manufacture to a serious extent. The following remarks in connection with the production of the different descriptions of salt obtained at the Lake will give further information on the subject:—

*Walled enclosures.*—We have ten of these important works at Sambhar, and a large one at Nawa was completed during the first three months of the year under report. By the end of September 1897, the pans of all these enclosures had been filled with brine to a depth of from 16 to 18 inches, and so charged, these works would in an ordinary years have yielded at least thirty lakhs of maunds of good salt. The actual outturn amounted to only 16 lakhs of maunds, compared with nearly 26½ lakhs in 1896-97, itself a bad year, more than 35½ lakhs in 1895-96, and over 41½ lakhs during 1894-95. The low outturn of the past year was entirely due to the inferiority of the lake brine, and to the presence of the vegetable matter which I have already described. The poverty of the brine in chloride of sodium was illustrated in the case of the new walled enclosure at Nawa. Nine pans of this work had been completed before the commencement of the monsoon of 1896. At its close, these were charged with brine and yielded an outturn of 7,459 maunds of salt from every acre of evaporating surface. During the year under review, the same pans yielded 4,460 maunds per acre, and only 1,931 maunds per acre were obtained from 51 new pans. These figures show clearly how very poor the brine of the past year was in common salt. The vegetable growth I have mentioned affected manufacture in all of the walled enclosures, but more seriously at Sambhar than at Nawa. In its gelatinous state, it remained in suspension in the brine, and could not be separated from it, and it was not materially affected as the specific gravity of the brine increased. The result of this was that much salt precipitated in such small crystals, and was so contaminated by vegetable matter, that it had to be rejected as unsaleable. Even the salt which was extracted, though it was saleable, was poor in quality both as regards size of crystal and purity.

*Lake edge pans.*—The outturn of these works during the year amounted to maunds 1,84,009 only, compared with 4 lakhs in 1896-97, 9½ lakhs in 1895-96, and 22 lakhs during 1894-95. Owing to the inferior quality of the Lake brine, the outturn from these works during the past year would not in any case have been large, but the vegetable matter which formed in the lake rendered futile all the efforts which were made to produce a satisfactory quantity of salt. By the 22nd



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of October 1897, 897 pans had been constructed and filled with brine at the Sambhar end of the Lake. Vegetable matter then began to form, and all these works had to be abandoned. The beds of the pans became covered with a glutinous vegetable matter of a dark yellow colour, the concentration of the brine was impeded by the same matter in suspension in it, and when salt finally formed it was deposited in minute crystals upon a layer of vegetable matter from which it could not be separated. Pan manufacture in the Sambhar section was a complete failure, not a maund of salt having been obtained from 897 pans which had been filled with brine. At Gudha also, manufacture west of the railway embankment completely failed for the same reason as at Sambhar, and 325 pans, which had been constructed along that section of the Lake shore, had to be abandoned. East of the railway, the small quantity of 24,647 maunds of salt was obtained from 149 pans, which were worked until the small supply of brine available was exhausted. The brine at the Nawa end of the Lake was not so thick with vegetable matter as at Sambhar and Gudha, and the Lake edge pans there worked with better results. The supply of Lake brine was small, but it was supplemented by percolation brine from shallow wells and brine channels in the Lake shore, and in this manner manufacture was carried on until maunds 1,59,362 had been produced and stored. Percolation brine is never utilized when good Lake brine is available, as the salt obtained from it is of poor quality, but the past was an exceptional year and inferior produce had to be collected. The salt is, however, all saleable, and there will be no difficulty in disposing of it.

*Lake salt.*—Maunds 47,494 were obtained during the year under report, compared with maunds 43,156 during 1896-97, nearly  $6\frac{1}{4}$  lakhs of maunds in 1895-96, and more than  $6\frac{1}{2}$  lakhs during 1894-95. The small quantities of this description of salt produced in the past two years show clearly the difficulties which we have had to contend with in connection with manufacture during those periods, owing to deficiencies in the monsoon rainfall. Every effort was made during the past year to produce as much of this description of salt as possible. Enclosures were made in the Lake bed, and as much brine as possible was collected in these, and under ordinary circumstances a fair outturn of salt would have been obtained. Results, however, were very disappointing, as not only was the brine inferior and impure with vegetation, but in disappearing it left only a thin film of salt on the surface of the Lake bed. No Lake salt was produced at Sambhar and Nawa. At the latter place the supply of brine was insufficient for this description of manufacture. In the Sambhar section a large enclosure was made in the bed of the Lake at Japog, and this was filled with a depth of brine which would have yielded a fairly large quantity of salt under ordinary circumstances. But all the brine in this disappeared, leaving so little salt on the surface of the Lake bed that it could not be extracted; in fact it was so inferior that it was not such as we could accept. The same thing occurred in the Gudha section west of the railway embankment. Enclosures made in the Lake bed there were filled with brine, but this disappeared, leaving salt in only thin flakes behind. My impression is that in these cases, owing to the lowering of the spring level consequent on the failure of the monsoon during two successive years, most of the brine sank into the mud of the Lake bed, carrying with it the greater part of the saline

matter which it held in solution. All of the salt obtained from the Lake during the past year, was the produce of small enclosures in the Gudha section east of the railway embankment. The outturn from these was not large, as the supply of brine was small.

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The diminution in the visible supply of salt, which I have remarked upon as having been apparent at the Lake during the year under review, does not appear to one to be a cause for anxiety. There are immense quantities of salt in admixture with the mud of the bed of the Lake, and in solution in the subterranean brine which underlies it under pressure. I believe that with a normal rainfall and the collection of a large quantity of water in it, agitated by the usual strong winds, the Lake will recover its capacity for producing as much salt as we shall be able to manufacture.

The experience of the past two years has shown us the very great value of our walled enclosures. But for their existence, manufacture would have been practically a complete failure both in 1896-97 and the year under review. Stocks would have been exhausted, and trade would have been at a stand-still. The soundness of the policy which has been followed for many years past, in steadily carrying on the construction of these extensive and productive salt factories, has been amply demonstrated by events.

Manufacture during the past year was so restricted, for the reasons which I have given, that no difficulty whatever was experienced in connection with supply of labour. Comparative figures in connection with the cost of manufacturing the different descriptions of salt appear below:—

Description of salt.		1896-97.	1897-98.
		Pics per maund.	Pics per maund.
From walled enclosures	...	3.65	3.47
From pans on Lake edge	...	5.51	5.14
From Lake bed	...	5.00	6.83
Average cost	...	3.91	3.73
Total quantity of salt produced		Maunds. 30,89,846	Maunds. 18,31,629

A characteristic of both years was that by far the greater part of the salt made was the produce of our walled enclosures. These works not only yield the best salt, but the cost of manufacture at them is less than in the case of Lake edge pans and spontaneous salt obtained from the bed of the Lake.

36. The next statement shows the stock of salt in hand, the quantity manufactured, and excesses discovered on clearance of heaps, the quantity issued (sales and free deliveries), and deficits found in heaps cleared, and the closing balance of stock in each of the past four years:—

Stock, manufacture, and  
issues.

Year.	Manufacture, &c.				Issues.				Closing balance.
	Opening balance.	Quantity of salt manufactured.	Excesses in heaps cleared.	Total.	Sales.	Free deliveries.	Deficits in heaps cleared.	Total.	
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	
1894-95	18,66,903	70,35,016	1,10,214	90,12,133	49,31,619	27,510	70,575	41,29,703	49,82,439
1895-96	48,82,430	51,29,304	1,67,913	1,01,79,647	37,15,774	23,269	1,28,600	38,67,644	63,11,953
1896-97	63,11,953	30,89,846	1,65,514	95,67,313	39,31,210	73,490	88,005	40,42,675	55,24,638
1897-98	55,24,638	18,31,629	1,56,526	75,12,793	41,03,449	16,960	1,56,632	42,77,032	32,35,761

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The past year opened favourably, with a stock balance of 55½ lakhs of maunds, and had the season for manufacture been favourable, this stock would have been maintained. But the outturn of salt during the year was poor; for the reasons which I have given, sales were exceptionally heavy; and by the end of the year the stock in hand had been reduced to little more than 32½ lakhs, less than a year's supply. I trust that the rainfall of the current year will be favourable, and in such case a sufficiency of salt will be manufactured to meet all demands.

Results of clearances of  
heaps.

37. The following statement shows the excesses and deficits which were discovered in the store heaps of salt sold and cleared during the year under review:—

Years to which heaps belonged.	Cleared during the year under report.	Estimated contents.	Actual outturn.	Excess or deficit.	Percentage of excess or deficit.
	No.	Mds. s.	Mds. s.	Mds. s.	
1894-95 ...	14	6,77,033 39	6,08,527 33	-68,506 6	-10.12
1895-96 ...	57	22,66,925 0	22,90,358 2	+23,433 2	+1.03
1896-97 ...	20	10,40,375 35	10,82,907 30	+42,531 35	+4.09
1897-98 ...	4	74,666 21	77,102 20	+2,435 39	+3.26
Total ...	95	40,59,001 15	40,58,896 5	-105 10	-0.00

Ninety-five heaps of salt were cleared during the year. These were estimated to contain maunds 40,59,001-15-0. The actual outturn amounted to maunds 40,58,896-5-0, or a minus difference of only maunds 105-10-0. Considering that the whole of this salt was stored in the open and exposed to climatic vicissitudes, this result is satisfactory.

Prices of Sambhar salt at  
the Lake since the begin-  
ning of the lease.

38. The following statement shows the prices at which Sambhar salt has been sold at the Lake from 1870-71 down to the close of the year under report:—

Year.	1	2	3	4	5	6	7	8	9	10	11		
	One anna to two and-a-half annas.	Above two and-a-half annas to three annas.	Above three annas to four annas.	Above four annas to five annas.	Above five annas to six annas.	Above six annas to seven annas.	Above seven annas to eight annas.	Above eight annas to nine annas.	Above nine annas to ten annas.	Above ten annas.	Total.	Average per maund.	
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	As.	
1870-71.	...	...	...	...	...	...	...	...	12,45,892	...	12,45,892	10 00	
1871-72.	...	...	...	...	3,011	33,353	3,57,869	1,53,002	4,48,037	1,33,690	11,29,982	9 34	
1872-73.	...	...	...	4,682	...	1,586	76,199	1,77,211	4,63,345	5,89,883	13,13,409	10 75	
1873-74.	...	...	1,283	...	80	...	5,263	99,183	6,10,401	4,36,660	11,52,870	10 59	
1874-75.	...	...	629	946	...	...	4,316	1,27,102	4,19,503	5,12,905	10,65,471	10 53	
1875-76.	...	...	...	...	...	28,819	3,33,739	6,39,979	2,08,702	3,82,425	15,91,661	9 35	
1876-77.	...	...	...	...	53,511	6,86,565	6,95,472	53,292	71,985	2,01,669	17,62,491	7 91	
1877-78.	...	...	...	...	2,22,068	2,76,472	13,02,057	3,37,798	1,69,902	3,20,914	26,29,171	8 21	
1878-79.	...	...	7,21,057	29,237	9,31,875	1,31,228	2,77,996	91,219	48,964	4,46,327	26,70,353	6 73	
1879-80.	...	...	25,95,121	71,919	1,42,378	38,555	1,27,953	10,113	1,75,090	1,58,352	33,49,016	4 74	
1880-81.	43,217	...	13,59,181	3,91,933	1,63,621	1,97,731	1,73,943	1,87,281	1,35,293	1,11,869	30,61,188	5 33	
1881-82.	2,058	...	17,19,957	5,75,961	6,19,076	1,22,707	91,969	73,686	73,291	72,236	37,20,536	4 82	
1882-83.	57,252	...	18,17,251	4,29,162	3,73,541	1,82,677	4,15,841	1,10,121	1,39,114	51,924	36,21,659	5 03	
1883-84.	...	...	769	7,02,910	17,91,977	5,11,822	5,12,687	1,99,170	17,577	1,411	...	36,81,160	5 01
1884-85.	29,977	23,500	8,702	7,02,113	1,59,728	1,52,562	1,03,498	23,882	9,455	4,023	42,99,141	3 29	
1885-86.	12,18,101	...	...	...	...	...	4,13,395	...	...	...	...	17,29,406	4 03
1886-87.	...	...	31,35,769	...	...	...	4,49,897	...	...	...	...	37,85,516	4 44
1887-88.	...	...	21,85,400	675	3,38,157	21,822	...	...	...	...	...	35,45,930	4 09
1888-89.	...	...	15,91,425	6,79,189	3,64,316	3,018	67	...	...	...	...	35,96,019	4 29
1889-90.	...	...	...	...	1,16,020	20,167	515	...	...	...	...	39,31,895	4 08
1890-91.	7,122	11,75,400	13,90,235	3,673	...	...	...	...	...	...	...	42,82,236	3 64
1891-92.	1,78,000	13,81,115	5,107	...	...	...	...	...	...	...	...	43,67,912	2 72
1892-93.	4,51,053	14,77,508	...	...	...	...	...	...	...	...	...	51,09,601	2 67
1893-94.	...	11,17,519	...	...	1,95,969	...	11,61,612	...	...	...	...	27,95,141	5 46
1894-95.	...	...	38,73,937	...	...	...	3,57,891	...	...	...	...	49,31,618	4 36
1895-96.	...	...	37,15,771	...	...	...	...	...	...	...	...	37,15,774	4 00
1896-97.	57,629	...	38,99,499	...	...	...	...	...	...	...	...	39,31,210	3 99
1897-98.	...	...	11,63,119	...	...	...	...	...	...	...	...	41,03,419	4 00

SALT REVENUE DEPARTMENT FOR THE OFFICIAL YEAR 1897-98.

The whole of the salt which issued during the year under review was sold at one uniform rate of four annas a maund, and this has been the sale price of the past three years. A small quantity, maunds 37,320, was sold at two and-a-half annas a maund during 1896-97, owing to its inferiority, but this rate was a special one, and only applied to the salt at one particular store heap. We do not now manufacture salt differing so much in quality as to necessitate varying prices. The arrangements at the Lake tend to the production of salt of uniform market value.

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39. The quantities of salt sold at the Sambhar Lake during the past four years will be found entered in the following statement:—

Details of sales.

Year.	Through traffic trade, rail-borne.	Ordinary trade.			Grand total of sales.
		For removal by railway.	For removal by road.	Total.	
	Mds.	Mds.	Mds.	Mds.	Mds.
1894-95 ...	20,90,778	17,69,685	1,71,255	19,40,840	40,31,618
1895-96 ...	9,41,581	26,00,699	1,73,191	27,74,190	37,15,774
1896-97 ...	12,00,327	23,51,400	1,76,193	27,30,893	(a) 39,31,210
1897-98 ...	17,44,554	22,15,160	1,43,726	23,58,886	(a) 11,03,440

*Through traffic.*—The sales of salt under this head during the past year are in excess of the figures of 1896-97 and 1895-96, but are below those of 1894-95. In past annual reports, I have explained that the decline in this branch of traffic during 1896-97 and 1895-96 was owing to the issue, together with salt of first rate quality from our walled enclosures, of some fresh salt of fine grain from Lake edge pans, which it was inadvisable to store owing to its liability to cake in large heaps: that the local traders made large purchases under these arrangements, but the salt could not be sent to through traffic traders without first consulting them, and that it was impossible to do this, scattered as they were over large areas of consumption. The trade of the year under review was not affected in this way, and shows a great improvement, 42·51 of the entire sales of the Lake having been indented for under the through traffic system for despatch by departmental agency. Under favourable manufacturing conditions, I anticipate that this branch of trade will quite recover itself.

*Ordinary rail-borne trade.*—The figures under this head are of salt sold to purchasers locally for despatch by mercantile agency. The year under review shows a decrease in this branch of trade, but this is more than counterbalanced by the increase under through traffic.

*Road traffic.*—The following is a classification of salt removed by road during the past four years:—

					Banjara trade.	Local sales.	Total.
					Mds.	Mds.	Mds.
1894-95 ...	...	...	...	...	1,67,612	3,643	1,71,255
1895-96 ...	...	...	...	...	1,70,316	3,175	1,73,491
1896-97 ...	...	...	...	...	1,73,448	3,035	1,76,483
1897-98 ...	...	...	...	...	1,39,091	4,645	1,43,726

There was a large decrease in the quantity of salt sold for removal by Banjaras. This does not show that there was

(a) Includes maunds 5,000 delivered on realization of price, but free of duty, to the Rām-pur Darbar.

REVIEW BY SECTIONS. really a falling off in the trade. The volume of this traffic remained constant, but instead of travelling to the Lake, the Sambhar. Banjaras resorted to certain railway stations on the Rájputána-Malwa line, nearest to areas supplied by road, and salt was sent out to these by the Sambhar traders for sale to Banjaras.

The local sales met the wants of the country in the immediate neighbourhood of the Lake, and were unimportant.

The figures below show the progression of the total sales of the Lake :—

			Sales. Mds.	Increase or decrease. Mds.
1894-95	...	...	40,31,618	...
1895-96	...	...	37,15,771	-3,15,844
1896-97	...	...	39,31,210	+2,15,436
1897-98	...	...	41,03,410	+1,72,230

The sales of 1895-96 were poor owing to Calcutta salt being forced up-country in that year under the influence of low prices, but since then the trade of the Lake has steadily recovered itself. Considering that there was severe scarcity and distress during the first three months of the year over almost the whole of the country in which Sambhar salt is consumed, I think the trade of the past year was very satisfactory.

The total revenue of the Sambhar Lake during the past year amounted to Rs. 1,12,99,465. The following particulars show where this money was paid in :—

				Rs.
Paid into the Treasury at Sambhar	...	...	...	63,73,528
Paid into the following Treasuries :—				
30 in the North-Western Provinces and Oudh	...	...	...	46,72,513
3 in the Panjáb	...	...	...	
2 in Rájputána	...	...	...	
2 in Central India	...	...	...	
1 in Bengal	...	...	...	
Paid in the following Post-offices :—				
7 in the North-Western Provinces and Oudh	...	...	...	1,01,050
1 in Rájputána	...	...	...	
1 in Central India	...	...	...	
Paid at 12 stations on the Indian Midland Railway, final deposit being made in the Jhánsi Treasury.				1,52,374
Total	...	...	...	1,12,99,465

Out of the total revenue of nearly 113 lakhs of rupees, 49½ lakhs were paid into 38 provincial treasuries, 9 post-offices, and 12 stations on the Indian Midland Railway. This distribution of treasure is very convenient for the needs of Government, and not only so, but facilities for payment of the cost of salt at so many widely-scattered localities tends to cheapen salt to the consumer and to lower prices by increasing competition.

Clearances of salt.

40. The trade of the Sambhar Lake is so large and important that it is necessary to pass under review the quantities of salt which were actually cleared, and so removed to areas of consumption. The following statement gives information on this subject for the past four years :—

Year.	Uncleared balance at beginning of the year.	Sales during the year.	Total.	Cleared during the year.	Uncleared balance.
	Mds.	Mds.	Mds.	Mds.	Mds.
1894-95	81,185	40,31,618	41,12,803	36,15,558	4,67,235
1895-96	4,67,235	37,15,771	41,83,009	49,21,752	1,61,257
1896-97	1,61,257	39,31,210	40,92,467	40,42,133	60,334
1897-98	60,334	41,03,410	41,53,744	40,55,180	97,564

# SALT REVENUE DEPARTMENT FOR THE OFFICIAL YEAR 1897-98.

The removals of the past three years exhibit a satisfactory steadiness, with a slightly progressive tendency. The figures vary from a little less than 40½ lakhs of maunds in 1895-96 to somewhat over 40½ lakhs during the year under report—a difference of about 25,000 maunds only. The salt trade of the Lake was not affected by the severe scarcity and distress which existed during 1896-97 and the beginning of the past year, and this is further proof of the efficacy of the measures of famine relief adopted by Government.

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The territorial distribution of the salt actually removed from the Lake will be found in the table below :—

Territorial distribution  
of the salt actually re-  
moved from the Lake.

	1894-95.	1895-96.	1896-97.	1897-98.
<b>By RAILWAY.</b>				
	Mds.	Mds.	Mds.	Mds.
North-Western Provinces and Oudh	25,94,140	28,62,754	28,90,263	28,92,764
Panjab	2,18,176	2,40,969	2,55,660	2,95,268
Rajputana	3,80,977	4,91,205	5,10,890	4,93,271
Central India	2,08,221	1,79,340	1,88,400	2,02,060
Central Provinces	22,288	21,697	15,375	17,452
Bengal	54,680	37,003	6,000	14,078
Bombay	...	5	13	...
Total, Rail-borne	34,78,482	38,41,973	38,66,601	39,14,893
<b>By ROAD.</b>				
Panjab	...	151	171	...
Rajputana	1,67,086	1,79,628	1,75,361	1,41,287
Total, Road traffic	1,67,086	1,79,779	1,75,532	1,41,287
<b>TOTAL DISTRIBUTION.</b>				
North-Western Provinces and Oudh	25,94,140	28,62,754	28,90,263	28,92,764
Panjab	2,18,176	2,50,120	2,55,831	2,95,268
Rajputana	5,48,063	6,70,833	6,86,251	6,34,558
Central India	2,08,221	1,79,340	1,88,400	2,02,060
Central Provinces	22,288	21,697	15,375	17,452
Bengal	54,680	37,003	6,000	14,078
Bombay	...	5	13	...
Total, Distribution	36,45,568	40,21,752	40,42,133	40,56,180

The following comparative percentages of removal to the different territorial divisions illustrate further the distribution of the large quantities of salt dealt with :—

	1894-95.	1895-96.	1896-97.	1897-98.
North-Western Provinces and Oudh	71.16	71.18	71.50	71.32
Panjab	5.99	6.22	6.33	7.28
Rajputana	15.03	16.68	16.98	15.64
Central India	5.71	4.46	4.66	4.98
Central Provinces	0.61	0.54	0.38	0.43
Bengal	1.50	0.92	0.15	0.35
Bombay	0.09	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00

The figures show that the trade with the North-Western Provinces and Oudh and with the Panjab has increased slowly but steadily during the past four years. The exports to areas in Rajputana decreased somewhat during 1897-98, as compared with the two previous years, but were larger than those of 1894-95. The trade with Central India was less than in 1894-95, but has been progressive during the past three years. There was an improvement in the trade of the past year with the Central Provinces as compared with 1896-97. The traffic in that direction is not large, as distances are great

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REVIEW BY SECTIONS. and cheaper salt from Bombay has to be competed with. Compared with 1896-97, a larger quantity was consigned to Bengal. Further information in regard to the distribution of the trade will be found in the following paragraph.

Territorial distribution by rail.

41. The clearances of rail-borne salt will be found classified by railways in the following statement :—

	Quantity of salt carried.				+ Increase or —Decrease.
	1894-95.	1895-96.	1896-97.	1897-98.	
	Mds.	Mds.	Mds.	Mds.	Mds.
Bombay, Baroda and Central India, including Rájputána-Malwa Railway.	15,58,140	17,48,631	17,38,703	16,52,411	—86,292
North-Western Railway ...	92,786	1,09,875	1,14,550	1,21,372	+6,823
East Indian Railway ...	4,06,818	4,33,257	4,36,280	4,73,970	+37,690
Indian Midland Railway ...	3,11,751	3,11,088	3,41,699	3,40,210	—1,489
Oudh and Rohilkhand Railway ...	10,08,095	9,28,604	9,29,846	9,58,590	+28,744
Rohilkhand and Kumaun Railway ...		2,91,720	2,17,775	2,49,563	+31,788
Bengal and North-Western Railway, including Tirhoot State Railway.	99,432	1,07,285	78,935	1,09,575	+30,640
Bengal-Nagpur Railway ...	560	1,313	8,813	9,187	+374
Eastern Bengal State Railway ...	...	187	...	...	...
Great Indian Peninsula Railway ...	...	13	...	15	+15
Total ...	34,78,482	38,41,973	38,66,601	39,14,893	+48,292

Compared with 1896-97, there was an increase in the trade of seven railways, and a decrease in the traffic of two lines.

*Bombay, Baroda and Central India Railway.*—Sambhar salt is only carried over the narrow-gauge section of this line, that is, the Rájputána-Malwa Railway and its different branches. During the year under review, the traffic of this line decreased by 86,292 maunds. There was a falling off of 24,600 maunds in the trade of the section from Ajmere to Khundwa, the bookings to Indore being only 375 maunds, compared with 5,247 maunds during 1896-97, and it would appear that Sambhar has been displaced to some extent by Baragara salt in that direction. Elsewhere, the trade of the different sections has fluctuated, owing partly to market exigencies and the condition of stocks, and partly to salt having been booked through from the Lake to stations on railways to the eastward, instead of breaking bulk at centres like Cawnpore and Agra.

*North-Western Railway.*—There has been a steady increase in the trade of this railway during the past four years. Hitherto, the traffic has been confined to the section of the line lying in the North-Western Provinces between Ghaziabad and Saháranpur, but during the past year a small quantity of Sambhar salt pushed its way up the southern Panjáb section as far as Rohtak.

*East Indian Railway.*—The trade of this line has also been progressive during the past four years. The increase in the traffic was widely distributed, and during the year under report there were notable expansions,—(1) between Mirzapur

and Mogul Serai on the main line, and (2) on the Jubbulpur extension down to Katni. REVIEW BY SECTIONS. SAMBHAR.

*Indian Midland Railway.*—The trade of this line remained steady during the year. There were market fluctuations in the traffic of the different sections, the bookings to the Bina-Guna branch showing a large increase, but generally the trade was the same as during 1896-97.

*Oudh and Rohilkhand Railway.*—The trade of this railway increased by 28,744 maunds during the year. This increase was widely distributed over the stations on the main line from Benares upwards, and on the Bareilly, Rampur, Moradabad and the Bahramghat branches. Bookings to Benares and Bahramghat on the river Ghagra were much larger than usual, indicating an extension of consumption of Sambhar and the displacement of Calcutta salt.

*Rohilkhand-Kumaun Railway.*—The trade of this line has been steadily expanding during the past three years, and this indicates an increase in the consumption of Sambhar salt along the line of the Terai.

*Bengal and North-Western Railway.*—There was a revival in the trade of this line, the bookings of the past year exceeding those of 1896-97 by maunds 30,640. This increase indicates a displacement of Calcutta salt, and it was widely distributed. The statistics of this line include the trade of the Tirhoot State Railway, and the quantities of salt consigned to the North-Western Provinces and to Behar in Bengal are noted below:—

	1896-97.	1897-98.	Difference.
	Mds.	Mds.	Mds.
Consigned to stations in the North-Western Provinces and Oudh.	72,935	95,498	+22,563
Consigned to stations in Behar	6,000	14,077	+8,077
Total	78,935	1,09,575	+30,640

The bookings to Behar were to the Segowli, Motihari, and Motipur stations of the Mokameh Ghat-Bettiah section of the Tirhoot State Railway. Maunds 13,115 were consigned to Segowli, compared with only 6,000 maunds during 1896-97, and it would appear that the trade in Sambhar salt with Nipal is still carried on.

*Bengal-Nagpur Railway.*—The trade with this railway was small, as the country which the line serves is distant from the Lake, and Bombay salt can be laid down cheaply. For these reasons an expansion of traffic can hardly be looked for. Salt was consigned to only three stations—Sahdol, Burhar, and Pendra Road—and there was a slight increase in the trade with these during the year, compared with 1896-97.

*Road traffic.*—Removals of Sambhar salt by road are shown below:—

	1896-97.	1897-98.	Difference.
	Mds.	Mds.	Mds.
To the Panjáb	171	...	—171
To Rájputána	1,75,361	1,41,287	—34,074
Total	1,75,532	1,41,287	—34,245

Of the quantity shown as having been consigned to Rájputána, 4,545 maunds represent local consumption in the neighbourhood



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of the Lake, and the balance, maunds 1,36,742, was removed by Banjara carriers, who traded with the country in Rájputána and Central India lying to the southward of Sambhar and as yet untapped by railways. Of the total quantity, maunds 1,28,714 were booked to the Bundi State, but probably a good deal of this salt found its way further to the southward into Central India. There was a falling off of 35,634 maunds in this trade, sales to banjaras amounting to only maunds 1,36,742, compared with maunds 1,72,376 during 1896-97. The decrease is, however, more apparent than real, as instead of travelling to the Lake, banjaras resorted to convenient railway stations and obtained supplies of salt there which were sent out to them by traders at Sambhar.

Comparison of prices of  
salt at Cawnpore.

42. The table below gives for the past two years the monthly prices of Sambhar, Sultanpuri, and Rock salts at Cawnpore, the principal salt mart of Upper India. These three descriptions entirely occupied the market named, no other varieties having gained a footing in it:—

	Sambhar salt.		Sultanpuri salt.		Rock salt.	
	Per maund.		Per maund.		Per maund.	
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
	Rs. a p.	Rs. a p.	Rs. a p.	Rs. a p.	Rs. a p.	Rs. a p.
April ...	3 4 9	3 4 6	3 1 0	3 1 6	3 2 0	3 6 0
May ...	3 5 0	3 4 6	3 2 0	3 3 0	3 5 0	3 6 0
June ...	3 5 6	3 4 6	3 3 0	3 3 0	3 5 6	3 5 6
July ...	3 5 6	3 4 9	3 3 0	3 2 0	3 5 6	3 5 0
August ...	3 5 6	3 3 0	3 3 0	3 2 6	3 5 6	3 5 0
September ...	3 5 6	3 5 0	3 3 0	3 3 0	3 5 6	3 5 0
October ...	3 5 6	3 4 6	3 3 0	3 3 0	3 5 6	3 5 0
November ...	3 5 6	3 4 6	3 3 0	3 3 0	3 5 6	3 5 0
December ...	3 4 6	3 3 6	3 3 0	3 3 3	3 5 4	3 5 3
January ...	3 5 6	3 4 6	3 3 0	3 3 3	3 5 4	3 5 0
February ..	3 5 3	3 5 0	3 3 0	3 3 3	3 6 0	3 5 0
March ...	3 5 3	3 5 0	3 3 0	3 3 3	3 6 0	3 5 0
Average ...	3 5 3	3 4 5	3 2 0	3 2 10	3 5 3	3 5 3

Sambhar is the principal salt imported into Cawnpore, more than 3½ lakhs of maunds having entered that market during 1897-98. Prices were steady throughout the year, and were generally lower than during 1896-97, the average rate being less by an anna a maund.

Sultanpuri salt holds a subordinate place, the imports during the past year having been only a little more than half a lakh of maunds. Sale prices were steady, and were practically the same as during 1896-97.

Only about 13,000 maunds of rock salt from the Panjáb Mines were consigned to Cawnpore during the year. The trade in this salt also was therefore small. Prices were practically stationary during the year.

Sambhar salt is generally consumed throughout the North-Western Provinces and Oudh, and its cheapness in the principal mart of the united Provinces is a satisfactory feature of the record of the past year.

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43. The miscellaneous receipts and charges at the Sambhar Lake during the past two years appear in the following statement:—

## REVIEW BY SECTIONS. SAMBHAR.

Miscellaneous receipts and charges on through traffic sales.

	1896-97.	1897-98.		1896-97.	1897-98.
	Rs.	Rs.		Rs.	Rs.
Opening balance ...	1,01,554	91,272	Sums paid to contractor for cutting, filling and loading of salt.	8,123	12,217
Receipts on 12,00,327 maunds, at 3 pies per maund.	18,767	...	Paid to Railway Department on account of Godown rent.	660	...
			Sealing wax ...	69	...
			Price of twine for sewing ...	593	...
			Transit charges on bags, weighing machines and weights	...	1,010
Receipts on maunds 17,44,554, at 3 pies per maund.	...	27,276	Through traffic iron bag shed	18,260	...
			Other charges ...	1,345	1,266
			Total ...	29,049	14,493
			Closing balance ...	91,272	1,04,065
Total ...	1,20,321	1,18,548	Total ...	1,20,321	1,18,548

The receipts represent a charge of three pies a maund, which is paid by purchasers of salt under the through traffic system to meet the cost of filling, loading and clearing their goods by departmental agency; and the charges show the expenditure incurred in the performance of this work.

The receipts of the year exceed those of 1896-97 by Rs. 8,509, the quantity of salt dealt with during the year under review having been larger by maunds 5,44,227.

The charges of the year show a decrease of Rs. 14,556, compared with 1896-97. The expenditure of the latter year was, as the account shows, abnormally swelled by the cost of the construction of a shed at the Sambhar railway station for the storage of bags belonging to traders in through traffic salt. The erection of this shed was not only necessary in view of the large business done and for the protection of the many thousands of bags consigned to us by traders; but, as a reference to the table will show, its construction resulted in a saving of Rs. 660 during the year, compared with 1896-97, on account of godown rent.

44. The following is the usual statement showing the financial results of the working of the Sambhar Lake from the beginning of the lease in 1870-71 down to the close of the past year:—

Financial results of lease of the Sambhar Lake.

Year.	Quantity of salt manufactured.	Total charges excluding treaty payments.	Sales up to and including 1894-95.		Credit balance.	1895-96.	
			Maunds of salt.	Realizations.		Maunds of salt.	Realizations.
	Mds.	Rs.	Mds.	Rs.	Rs.	Mds.	Rs.
From beginning of lease to end of 1894-95 ...	8,34,12,240	42,47,474	7,35,75,721	2,40,18,627	1,98,01,153	39,51,598	7,74,937
1895-96 ...	51,29,304	2,36,009	...	...	...	6,64,186	1,68,677
1896-97 ...	30,89,846	2,21,234	...	...	...	...	...
1897-98 ...	18,31,629	1,58,331	...	...	...	...	...
Total ...	9,34,63,019	48,63,048	7,35,75,721	2,40,18,627	1,98,01,153	37,15,774	9,43,632

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Year.	Credit balance.	1896-97.		Credit balance.	1897-98.	
		Maunds of salt.	Realizations.		Maunds of salt.	Realizations
	Rs.	Mds.	Rs.	Rs.	Mds.	Rs.
From beginning of lease to end of 1894-95 ...	2,05,76,138	11,81,879	3,00,060	2,08,76,198	4,76,108	1,22,192
1895-96 ...	—67,332	23,41,905	5,94,572	5,27,240	22,02,689	5,65,314
1896-97 ...	...	4,07,426	1,03,439	—1,17,795	12,86,840	3,30,263
1897-98 ...	...	..	...	...	1,37,803	35,367
Total ...	2,05,08,806	39,31,210	9,98,071	2,12,85,643	41,03,440	10,53,136

Year.	Credit balance.	Total sales.	Total receipts.	Total credit balance.	Treaty payment.	Net credit balance.
	Rs.	Mds.	Rs.	Rs.	Rs.	Rs.
From beginning of lease to end of 1894-95 ...	2,09,98,390	7,82,85,296	2,52,45,864	2,09,98,390	1,56,29,892	53,68,498
1895-96 ...	10,92,554	52,08,780	13,28,563	10,92,554	3,96,293	6,96,261
1896-97 ...	2,12,468	16,94,266	4,33,702	2,12,468	4,03,901	—1,91,433
1897-98 ...	—1,22,964	1,37,803	35,367	—1,22,964	4,11,967	—5,34,931
Total ...	2,21,80,448	8,53,20,145	2,70,43,496	2,21,80,448	1,68,42,053	53,38,395

Year.	Free deliveries.	Excesses or deficits of stock.		Dryage allowance to salt agents.	Estimated balance of stock.
		Excesses.	Deficits.		
	Mds.	Mds.	Mds.	Mds.	Mds.
From beginning of lease to end of					
1894-95 ...	5,85,202	25,52,146	70,07,920	39,796	46,172
1895-96 ...	23,820	2,37,356	83,841	...	48,719
1896-97 ...	18,500	83,251	14,722	...	14,45,609
1897-98 ...	1,000	2,065	530	...	16,95,261
Total ...	6,30,522	28,75,718	71,06,513	39,796	32,35,761

This running account now extends over 28 years. At the close of the year under review, the net credit balance amounted to Rs. 53,38,395, compared with Rs. 48,55,557 in 1896-97, an increase of Rs. 4,82,838. In addition to this, the stock balance of salt in hand at the close of the year amounted to maunds 32,35,761. Deducting from this stock a quantity of maunds 17,25,000 of salt, which would have to be delivered to the Darbars if the Sambhar Lake were given up, a balance remains of maunds 15,10,761, worth more than 3½ lakhs of rupees at the present selling rate of 4 annas a maund. If this sum be taken into account, the credit balance at the end of 28 years working amounts to more than 57 lakhs of rupees.

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45. The following statement shows the gross realizations, the fixed and contingent charges, and the net revenue of the Didwana Salt Source during the past four years :—

REVIEW BY SECTIONS.  
DIDWANA.  
Receipts, charges, and net revenue.

Year.	Gross realizations.				Charges.			Net revenue.
	Excise duty on salt.	Sale price.	Miscellaneous.	Total.	Fixed.	Contingent.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1894-95 ...	8,69,283	24,445	154	8,93,882	17,561	29,318	46,879	8,47,000
1895-96 ...	8,08,260	22,792	216	8,31,268	18,123	36,401	54,524	7,76,744
1896-97 ...	6,13,453	17,327	107	6,30,887	21,099	22,934	44,033	6,06,854
1897-98 ...	5,96,008	17,400	116	6,13,524	23,300	13,530	36,830	5,76,694

Excise duty on salt shows a decrease of Rs. 17,445 during the year under review, compared with 1896-97. The latter year was itself a poor one for trade. Adverse circumstances continued to affect sales at the Source, and full particulars with regard to these will be given in the next paragraph.

Decrease in receipts explained.

Realizations under sale price are slightly in excess during the past as compared with the previous year. Sales at Didwana comprise, (1) duty-paid salt, and (2) duty-free salt issued to the Jodhpur Darbar. The sale price of Didwana salt, one anna a maund, has been constant throughout. During the past year, there was a falling off in the quantity of duty-paid salt disposed of, but there was an increase in the issue of duty-free salt compared with 1896-97. Owing to this, the entire quantity of salt sold during the year under report was larger than in 1896-97, and this explains the apparent anomaly of a higher revenue under sale price, with a decrease under excise duty.

There are no through traffic collections in this Division, and miscellaneous receipts are of a petty nature.

The total expenditure incurred at the Source during the year was less than that of 1896-97 by Rs. 7,203.

Fixed charges show an increase of Rs. 2,201. This was owing partly to the Assistant Commissioner having received an annual increment to his pay, and partly to a Superintendent of the first grade having drawn pay in the Division during the whole of the past year, while he was posted to it for only eight months of 1896-97.

Increase in fixed

Under contingencies a decrease appears of Rs. 9,404 compared with 1896-97. Setting aside minor fluctuations, this difference comprises two items. There was a decrease of Rs. 5,705 in expenditure incurred on account of manufacture, the quantity of salt produced having been smaller than in 1896-97; and payments to the Bikanir Darbar on account of refund of half duty were less by Rs. 4,565, owing to a falling off in the quantity of salt booked to that State.

and decrease in contingent charges explained.

Compared with 1896-97, there was a decrease of Rs. 10,160 in the net revenue of the Division, owing to the falling off which occurred in the sales of duty-paid salt.

46. The following figures show the total quantities of salt sold at Didwana during the past four years :—

Details of sales.

	Full duty-paid.	Duty-free.	Total.
	Mds.	Mds.	Mds.
1894-95 ...	3,47,713	43,408	3,91,121
1895-96 ...	3,23,304	41,374	3,64,678
1896-97 ...	2,43,381	31,851	2,75,235
1897-98 ...	2,35,403	40,600	2,76,003

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The price of Sambhar salt stood at 8 annas a maund during the commencement of 1894-95, and sales at Didwana for that year were to some extent abnormally stimulated in consequence. Normal conditions obtained during 1895-96. Owing to extreme draught and great scarcity in the desert, the trade of 1896-97 fell off considerably, and the sales of the year under review were also influenced by adverse conditions.

Compared with 1896-97, the sales of duty-paid salt for the past year show a decrease of 6,978 maunds, and are less than those of 1895-96 by 84,901 maunds. The whole of the salt of this Source is removed on pack animals, trade routes run across desert country, and the trade is very sensitive to any causes affecting animal carriage. During the first three months of the year under review, the drought which resulted from the failure of the monsoon of 1896 was very severe, and there was a great scarcity of fodder and water on trade routes. The rains of 1897 were very favourable, and agricultural operations were so extensive that carriage was difficult to obtain during the season of the monsoon. The trade of the Source is generally most brisk immediately after the monsoon, when water and fodder are available everywhere. Owing to the very heavy monsoon of 1897, there was an outbreak of severe malarious fever just at this time over the country around the Source, and this caused a considerable falling off in trade during a period when it is usually good. When the effect of this cause had disappeared, the year was so far advanced that the Source could not recover itself, and the result was that less salt was excised than during 1896-97.

The issue of duty-free salt to the Jodhpur Darbar amounted to 40,000 maunds, compared with 31,854 maunds during 1896-97, or an increase of 8,146 maunds. This salt is consumed in the neighbourhood of Didwana, and as the monsoon of 1897 was good, an abundant harvest was secured, and issues of salt were large. The quantity sold during the past year represents the full quantity which is now taken by the Darbar from this Source. On all salt so delivered, the Department realizes one anna a maund as sale price, and Rs. 2-6-6 a maund Raj duty, or a total sum of Rs. 2-7-6 a maund. Monthly payments are made to the Darbar of all collections on account of Raj duty.

Distribution of fully  
taxed salt.

47. Particulars in regard to the course of the trade of the Didwana division are as follows:—

The bookings of full duty-paid salt cleared from the Source during the past two years are shown below:—

	1896-97.	1897-98.	Increase or decrease.
To the Railway at Nawa at the Sambhar Lake ... ..	Mds. 83,153	Mds. 92,609	Mds. +9,241
To the Panjáb—			
Bhewani ... ..	1,35,136	1,10,651	—15,785
Misrar ... ..	1,529	369	—1,160
Bolamand ... ..	135	...	—135
Sira ... ..	1,099	1,434	+335
Harsi ... ..	...	...	...
Pat'ala ... ..	69	310	+241
Total, Panjáb ...	1,38,268	1,21,764	—16,504
To Rájputána—			
Jaipur State ... ..	16,718	14,795	—1,923
Kishangarh State ... ..	33	43	+10
Kotah and Bundi States ... ..	1,084	4,894	+2,910
Likhatir State ... ..	6,241	1,053	—2,158
Total, Rájputána ...	24,076	23,815	—1,161
GRAND TOTAL ...	2,16,702	2,38,278	+8,424

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The quantity of salt sent to the railway during the year was larger than that so despatched in 1896-97 by 9,241 maunds, but was less than the bookings of 1895-96 by 20,403 maunds. The trade of the year under review would have been better had a sufficiency of carriage been available.

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DIDWANA.

The trade routes to Bhewani, Hissar, and Sirsa in the Pan-jáb are lengthy, and as they cross desert country, camels are exclusively used as a means of carriage. The trade with Sirsa was somewhat better than it was in 1896-97, but there was a falling off in the quantities despatched to Bhewani and Hissar. This was the result of the causes to which I have alluded in the preceding paragraph.

The trade with the Jaipur State continues to decline, and this is owing to Sambhar competing successfully with Didwana salt in that direction.

Bookings to the Kotah and Bundi States were larger. This is banjara-borne traffic, and the good monsoon of 1897 was favourable to this trade, as grass and water were available, and allowed the passage to and fro of the bullocks used by banjaras.

There was a further decline in clearances to the Bikanir State, but during the current year there has been a revival of this traffic.

Comparative bookings of salt issued duty free to the Jodhpur Darbar were as follows:—

Distribution of duty-free salt.

	1896-97.	1897-98.	Increase or decrease.
	Mds.	Mds.	Mds.
To Didwana	18,000	22,811	+4,811
„ Nagor	7,872	10,678	+2,806
„ Merta	2,838	4,093	+1,260
„ Parbatsar	2,310	1,783	—527
„ Marot	310	110	—200
„ Kuchaman	524	529	—4
Total	31,854	40,000	+8,146

The monsoon rains of 1897 were very favourable over the part of the Jodhpur State, which obtains supplies of salt from Didwana, and issues to the principal centres of Didwana, Nagor, and Merta were larger in consequence of an abundant harvest.

48. The following statement gives particulars in regard to manufacture and stock of salt at the Didwana Salt Source during the past four years:—

Stock and sale account.

Year.	Stock.		Sales.		Balance at close of the year.
	Balance at beginning of the year.	Extraction including excesses in heaps cleared.	Total.	Sales including deficits in heaps cleared.	
	Mds.	Mds.	Mds.	Mds.	Mds.
1894-95	1,63,209	4,16,608	5,79,717	3,91,121	1,88,596
1895-96	1,68,596	6,13,820	8,02,416	3,61,678	4,37,738
1896-97	4,37,738	4,54,158	8,91,896	2,77,235	6,14,661
1897-98	6,14,661	2,07,450	8,22,111	2,78,493	5,43,708

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Further details of the figures of the year under review are these:—

Stock balance on the 1st April 1897	...	...	Mds. 6,14,661
Add—		Mds.	
Quantity manufactured during the year	...	1,94,137	
Excess found on heaps cleared during the year	...	13,313	2,07,450
Total	...	...	8,22,111

### Deduct—

Sales of salt—			
Excise duty paid	...	2,38,403	
Delivered free of duty to the Jodhpur Darbar	...	40,000	2,78,403
Balance of stock on 31st of March 1898	...	...	5,43,708

The balance of stock in hand was smaller than at the close of 1896-97, but was still large. There is little loss from storage in the dry climate of Didwana, but it appears to me that it would be as well to reduce this stock, and the smaller quantity of salt manufactured during the year under review indicates that steps are being taken to that end. Salt is made at Didwana in solar evaporation pans from brine of high specific gravity obtained from wells sunk in the bed of the Source. The conditions are such that there can never be a failure in manufacture, and salt can be produced in large quantities with facility. The outturn of the past year, maunds 1,94,137, was obtained from the works between the 1st of April and the 3rd of May 1897.

Rate paid for manufacture and storage.

The combined cost of manufacture and storage amounted to 5.51 pies a maund during the past year, compared with 5.34 pies during 1896-97. The cost of storage was less, having been 2.43 pies a maund compared with 2.85 pies during 1896-97, but the average rate paid for manufacture was 3.08 pies a maund against 2.49 pies in 1896-97. This was owing to a better class of salt having been produced during the year under report, for which a higher value was paid.

Result of clearance of heaps.

Five heaps of salt, manufactured during 1895-96 and 1896-97, were cleared by sale during the year. They were estimated to contain maunds 2,40,367; the actual outturn amounted to maunds 2,53,680, or an excess of maunds 13,313, equivalent to 6.58 per cent. This result is satisfactory. The manufacturers are paid for every maund of salt sold by the Department, and they received the value of the excesses found in the heaps cleared.

PACHBADRA.  
Receipts, charges, and net revenue.

49. The gross realizations, the fixed and contingent charges, and the net revenue of the Pachbadra Salt Source (including the Luni salt tract), will be found in the table below, which gives statistics for the past four years:—

Year.	Gross realizations.				Charges.			Net revenue.
	Excise duty on salt.	Sale price.	Miscellaneous.	Total.	Fixed.	Contingent.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1894-95	17,43,295	76,733	8,381	18,30,409	47,286	1,17,125	1,64,411	16,65,998
1895-96	11,27,354	53,980	5,768	11,59,102	45,005	66,518	1,12,153	10,76,919
1896-97	12,53,579	60,291	6,740	13,26,610	41,296	69,277	1,13,573	12,13,037
1897-98	10,62,067	65,765	5,749	11,23,581	41,201	56,275	1,00,476	10,23,105

Decrease in receipts explained.

Owing to a failure of stocks at the Sambhar Lake, the price of Sambhar salt during the opening months of 1894-95 stood at eight annas a maund, and as this resulted in a special demand for Pachbadra salt, the revenue of the Source for that

SALT REVENUE DEPARTMENT FOR THE OFFICIAL YEAR 1897-98.

year was abnormally large. During the past three years there has been no special stimulus to the traffic, and sales have been in accordance with ordinary conditions of trade.

REVIEW BY SECTIONS.  
PACHBADRA.

The revenue of the past year fell below that of 1896-97 by Rs. 2,03,029, and was less than that of 1895-96 by Rs. 65,521. Sales comprise issues, (1) of duty-paid salt, and (2) of duty-free salt (on which, however, the sale price is realized) to the Jodhpur Darbar. The following figures show sales of the past two years in a comparative form :—

		1896-97.	1897-98.	Difference.
		Mds.	Mds.	Mds.
Duty-paid salt ...	...	5,03,832	4,24,827	—79,005
Duty-free salt ...	...	1,39,270	1,70,000	+30,730
Total	...	6,43,102	5,94,827	—48,275

It will be noticed that the decrease in the revenue of the current year was due to a falling off in the sales of duty-paid salt, and the reasons for the decline in the trade will be dealt with in the paragraphs which follow.

The total expenditure of the Division amounted to Rs. 1,00,476, compared with Rs. 1,13,573 during 1896-97, or a decrease of Rs. 13,097.

Decrease in fixed and in contingent charges explained.

The figures under fixed charges call for no remark, as the difference between the charges of the past two years is very small.

Under contingencies a decrease of Rs. 13,002 is apparent, and this was owing to a smaller quantity of salt having been purchased during the year.

The net revenue of the Source decreased from Rs. 12,13,037 during 1896-97 to Rs. 10,23,105 during the year under report, a difference of Rs. 1,89,932. This was due to a falling off in the sales of duty-paid salt.

50. The following statement shows in a detailed form the total quantities of salt which were cleared from the Pachbadra Salt Source during the past four years :—

Detail of sales of salt, duty-paid, duty-free, and free of all charges.

Year.	Duty-paid.				Duty-free.			Grand total of issues.
	Rail-borne.		Road traffic.	Total duty-paid salt.	Issued on realization of price, but free of duty.	Issued free of both price and duty.	Total duty-free salt.	
	Through traffic.	Ordinary trade.						
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
1894-95 ...	5,65,752	6,458	1,68,900	7,41,110	1,46,786	10,694	1,57,480	8,98,590
1895-96 ...	3,51,295	3,473	91,176	4,48,944	1,35,107	10,306	1,45,413	5,94,357
1896-97 ...	4,11,375	1,360	94,467	5,07,202	1,60,551	12,000	1,72,551	6,79,753
1897-98 ...	3,49,474	210	76,323	4,26,007	1,61,035	11,000	1,72,035	5,98,102

As I have explained in the preceding paragraph, the trade of 1894-95 in duty-paid salt was abnormally stimulated by the high price of Sambhar salt during the opening months of that year. Compared with 1895-96 and 1896-97, the trade of the year under review fell off by maunds 22,937 and maunds 81,195, respectively. Compared with 1896-97, the trade of the year fell off under all heads: maunds 61,901 under through traffic; maunds 1,150 under rail-borne ordinary trade; and maunds 18,144 under road traffic. Full particulars in regard to these fluctuations of trade will be found in the succeeding paragraph.



The following figures show the territorial distribution of the trade in duty-paid salt during the past two years :—

				1896-97.	1897-98.	Difference.
				Mds.	Mds.	Mds.
Rájputána	...	...	...	1,37,553	1,14,570	—22,983
Central India	...	...	...	2,28,730	1,77,631	—51,099
Central Provinces	...	...	...	1,33,845	1,29,851	—3,994
North-Western Provinces and Oudh	...	...	...	10,970	12,955	+ 2,985
Total	...	...	...	5,07,292	4,25,097	—81,195

The principal areas of consumption are, Rájputána, Central India, and the Central Provinces. The trade of the year fell off in all of these. There was an increase in bookings to the North-Western Provinces and Oudh. Pachhadra salt is consumed in Bundelkhand, and during the year there was some trade with marts to the eastward.

The salt issued on realization of price, but free of duty, was all delivered to the Jodhpur Darbar for consumption in the Marwar State. There was but little difference between the clearances of the past year. The Department realizes a sum of Rs. 2-8-0 a maund on this salt, one and-a-half annas on account of the departmental sale price, and Rs. 2-6-6 Raj duty. All collections on this latter account are paid to the Darbar monthly. Under existing arrangements made by the Darbar, issues of this salt are in accordance with demand in the State, regulated by consumption, and there are no accumulations of stocks.

Of the quantity of 11,000 maunds of salt issued free of all charges, 10,000 maunds were delivered to the Marwar Darbar and 1,000 maunds to the Meywar Darbar. These deliveries were in accordance with the provisions of the salt agreements with the two States.

Distribution of rail-borne  
through traffic.

51. The course of the rail-borne through traffic trade of the Pachhadra Salt Source will be found, classified by railways, in the table below :—

Lines of Railway.	1894-95.	1895-96.	1896-97.	1897-98.
	Mds.	Mds.	Mds.	Mds.
Jodhpur-Bikaner Railway	1,890	3,243	3,610	3,823
Bombay, Baroda, and Central India Railway, including Rájputána-Malwa Railway.	2,26,650	1,63,625	2,26,570	1,87,092
Indian Midland Railway	1,55,350	1,70,440	1,69,165	1,42,939
Great Indian Peninsula Railway	9,450	13,085	11,810	10,450
Bengal and North-Western Railway	787	370	...	4,515
East Indian Railway	1,00,800	532	...	620
North-Western Railway	9,608	...	190	...
Rohilkhand and Kumaun Railway	21,775	...	...	...
Oudh and Rohilkhand Railway	33,412	...	...	...
Total	5,65,752	3,51,295	4,11,375	3,49,474

As I have already mentioned, the trade of the year 1894-95 was abnormally large, and it therefore need not be passed in review.

*Jodhpur-Bikaner Railway.*—The trade of this line for the three years prior to 1897-98 was with the city of Bikaner exclusively. During the past year the bookings to Bikaner, maunds 3,610, were the same as in 1896-97. The increase resulted from a despatch of 218 maunds consigned to Sam

a station not far from Pachbadra, evidently to meet a demand from Banjaras.

REVIEW BY SECTIONS.  
PACHBADRA.

*Bombay, Baroda, and Central India Railway.*—The traffic over this railway is confined to the amalgamated Rájputána-Malwa Railway, from above Erinpura road, *via* Ajmere to Indore, including the Chitor-Udaipur line. The trade of the past year, though greater than that of 1895-96, was less than that of 1896-97 by 39,478 maunds. The trade with Neemuch, Beawar, and the Chitor-Udaipur line fell off considerably, owing to the competition of cheaper Sambhar salt. On the other hand, the traffic with Indore increased somewhat, indicating a slight advance of Pachbadra salt in the heart of Central India.

*Indian Midland Railway.*—Compared with 1896-97, there was a decrease of maunds 26,226 in the bookings to this railway during the year under review. The falling off occurred all along the line, and resulted from the competition of Sambhar and Baragara salts. Consignments to the Guna-Bina branch decreased considerably, and it was to stations on this section that bookings of Sambhar salt increased largely.

*Great Indian Peninsula Railway.*—The trade with this line was steady. Salt was booked to four stations only—Gadarwara, Piparia, Semri, and Sohagpur. This trade is not likely to increase as the distances are great.

*Bengal and North-Western Railway.*—The bookings indicate a new trade with the country trans-Ghagra. Salt was sent to Gonda and Basti and three other small stations. It is not clear yet whether this trade will develope.

*East Indian Railway.*—Trial consignments were despatched during the year to the stations of Mirzapur, Chunar, and Zamania.

It will have been noticed that the decrease in the through traffic trade of the Source occurred on the Rájputána-Malwa and Indian Midland Railways, owing to the competition of cheaper salt from Sambhar and Kharagora. The trade has recovered itself somewhat during the current year. I hope that it will do so entirely, as the Pachbadra Salt Source is of great value in connection with the salt supply of Northern India. The salt is of very superior quality, and a good stock of it is always available.

The following statement shows the course of the rail-borne ordinary trade of the Division for the past four years :—

Distribution of rail-borne  
ordinary traffic.

Lines of railway.	1894-95.	1895-96.	1896-97.	1897-98.
	Mds.	Mds.	Mds.	Mds.
Jodhpur-Dikaner Railway ...	315	2,055	730	210
Rájputána-Malwa Railway ...	2,233	1,498	570	...
Indian Midland Railway ...	2,520	...	...	...
Great Indian Peninsula Railway ...	630	...	...	...
Total ...	6,458	3,473	1,300	210

REVIEW BY SECTIONS.  
PACHBADRA.

This branch of trade is gradually dying out. For a payment of three pies a maund, the Department despatches salt under the through traffic system as expeditiously and more cheaply than mercantile agency. The one despatch of 210 maunds cleared during the past year was sent to the station of Marwar-Pali to a Banjara, who thus saved the time which would have been taken in travelling with bullocks to Pachbadra and back, a distance of about 140 miles.

Destination of salt removed by road.

The next statement shows the quantities of salt removed by road from the Source during the past four years:—

Areas.				1894-95.	1895-96.	1896-97.	1897-98.
				Mds.	Mds.	Mds.	Mds.
Central Provinces	...	...	...	1,42,759	61,791	63,879	61,061
Bhopal State	...	...	...	20,712	23,436	23,842	13,079
Meywar	..	...	...	5,255	8,869	6,232	2,183
Marwar	..	...	...	125	...	...	...
Serohi	..	...	...	49	80	514	...
Total				1,68,900	94,176	94,467	76,323

The whole of this salt was removed by Banjara carriers, who use only pack bullocks as a means of carriage.

It has often been remarked in previous annual reports that the facilities afforded by railways were likely to result in a decline in the Banjara trade. The railway now carries salt to areas of consumption in a fraction of the time occupied by slow moving droves of Banjara bullocks, and as it is but little handled, it is landed in better condition. The clearances of the past year show a further decline in this trade, and it is probable that a greater decrease will occur in the future. To some extent, Banjaras are adapting themselves to changed conditions, as instead of visiting the Source and buying salt at first hand, they purchase the supplies they require from through traffic merchants at points on the railway nearest to the areas over which they desire to distribute their goods.

The bookings of Banjara traffic are not to be depended upon entirely, and it is not practicable to make them more accurate. A banjara is a wanderer; he sells his salt wherever he can find a profitable market for it; and he consequently books his consignment to the furthest point he thinks he is likely to travel if he cannot effect sales on the way. It is for this reason that a large proportion of this trade is generally booked to the Central Provinces. Some of the salt may reach its nominal destination, but I believe that the greater part of it is disposed of in Meywar and the wild hilly country to the southward of that State.

52. The following statement shows the receipts and expenditure during the year under report in connection with the

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charge of three pies a maund on all salt sold under the through traffic system at the Pachbadra source :—

REVIEW BY SECTIONS.  
PACHBADRA.

Receipts.			Expenditure.		
Particulars.	Amount.	Total.	Particulars.	Amount.	Total.
	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
Miscellaneous charges on 3,47,754 Mds. of salt at three pies per Md.	5,433 12 6	5,433 12 6	Cost of cutting, loading, &c. of through traffic salt 3,32,144 Mds. at Rs. 3 per cent.	9,964 5 1	9,964 5 1
Debit balance ...	...	6,517 10 9	Pay of marker ...	82 8 0	
			Ochre ..	2 12 4	
			Oil for cleaning machines, sealing wagons, &c.	10 2 8	
			Security tickets ...	25 0 0	
			Twine ...	2 0 0	
			Stool for tarpaulins.	1 5 0	
			Repairing weighing machines.	2 5 10	
			Earthen pots ...	1 7 0	
			Stencil plates ..	3 0 3	
			Marking ink, &c.	25 0 7	
			Dusters, &c ...	1 13 3	
			Shelter for filling salt.	4 4 3	
			Cost of 12 tarpaulins.	352 4 0	
			Sealing wax ...	12 5 0	
			Cleaning godown	1 0 0	
			Cost of construction of godown for traders' bags.	1,459 14 0	1,987 2 2
Total ...	...	11,951 7 3	Total ...	...	11,951 7 3

The charge is made to meet the cost of filling the salt into bags, conveying it from the salt pits to the railway, and loading it into wagons. During the past year, tarpaulins were purchased for the protection from rain of bags filled with salt and awaiting removal by railway, and a godown was constructed for the storage of bags received from through traffic traders. The expenditure of the year (Rs. 11,951) exceeds the receipts (Rs. 5,434) by Rs. 6,517. Against this loss, there is the large credit balance of Rs. 1,04,055 under this head of revenue in the Sambhar Division.

53. The following statement shows the stock balances and the quantities of salt manufactured at the Pachbadra Salt Source during the past four years :—

Stock, manufacture, and issues.

Year.	Balance of stock at the beginning of the year.	Quantity stored during the year adding excesses and deducting deficits discovered at the time of clearance.	Total.	Quantity sold and delivered free during the year.			Balance of stock at the close of the year.
				Quantity sold.	Issued free of both price and duty.	Total.	
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
1894-95	61,898	11,09,214	10,44,376	8,39,818	11,000	8,50,818	1,93,558
1895-96	1,93,558	7,10,185	9,03,743	5,97,114	11,000	6,08,114	2,95,629
1896-97	2,95,629	7,22,765	10,18,394	6,13,102	11,000	6,24,102	3,64,292
1897-98	3,64,292	1,96,718	8,61,010	5,91,827	11,000	6,02,827	2,55,183

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## REVIEW BY SECTIONS. PACHBADRA.

The additions to stock comprise, (1) the quantity of salt manufactured and stored during the year, and (2) excesses discovered in heaps cleared by trade. The figures of the past year are below those of the three previous yearly periods, and the balance of stock in hand appears small. But it is sufficient for the needs of the Source, salt is always obtainable from the pits, and fresh salt is of more value in the markets than that which has been kept in store in open heaps and exposed to the vicissitudes of the weather. The supply at this Source is so certain that our object is to keep as small a stock as the demand will allow in order to issue salt in as fresh a state as practicable.

### Results of clearance of heaps.

The result of clearances of heaps of salt sold during the year was as follows:—

Quantity as estimated	...	...	...	...	Maunds.
Actual outturn	...	...	...	...	5,18,786
Paid for at time of estimation, being 25 per cent. less than estimate	...	...	...	...	5,69,515
Balance paid for on clearance	...	...	...	...	4,15,029
					1,54,486
Total quantity				...	5,69,515

Quantities of salt when first manufactured are estimated by cubical measurement of heaps put up, and final payments for excesses discovered are made as soon as these are cleared by trade. In this manner the manufacturers receive payment for every maund of salt disposed of by the Department. The following figures show the sums paid to these men during the past four years for salt produced by them:—

					Rs.
1894-95	...	...	...	...	81,245
1895-96	...	...	...	...	44,386
1896-97	...	...	...	...	44,870
1897-98	...	...	...	...	30,977

Payments vary with trade demands. The demand during 1894-95 was abnormal in consequence of the high price of Sambhar salt. The figures of the past year are lower than those of 1896-97 and 1895-96, owing to a smaller quantity of salt having been kept in stock. This, though it resulted in smaller payments, will eventually benefit manufacturers, as by issuing salt in as fresh a state as possible, we are endeavouring to keep up the trade of the Source by meeting the wishes of consumers, and every effort to this end is in the interests of manufacturers. They receive a fixed price of one anna a maund for the salt they supply, and their profits depend entirely upon the state of the trade.

The manufacture of salt at Pachbadra is not affected by climatic changes in the same way as at the Sambhar Lake, but a certain quantity of rain well distributed is needed for the renovation of the brine springs and the dilution of the concentrated brine in the salt pits. The fall of the past year occurred as follows:—

					Inches.
April 1897	...	...	...	...	0.5
June "	...	...	...	...	0.2
July "	...	...	...	...	7.99
August "	...	...	...	...	2.82
September "	...	...	...	...	1.87
October "	...	...	...	...	0.35
February 1898	...	...	...	...	0.26
Total				...	13.36

The heat at the beginning of the year was intense. The highest temperatures in the shade recorded were 114° in April, 116° in May, and 122° in June 1897. Down to the 20th July 1897 there was practically no rain. A fall of 4.27 inches then

occurred, and by the end of that month the monsoon was practically over in the desert country in which the Source is situate. Only light showers fell during August and September 1897, and much of the benefit of the fall of July was lost owing to the evaporation which occurred in consequence of the heat of those months. For these reasons, while salt formed in large quantities in the pits, it was small in grain owing to its being precipitated too rapidly.

REVIEW BY SECTIONS.  
PACHBADRA.

There was no difficulty in obtaining all the salt which was required for issue. For the reasons which I have given, it was somewhat small in grain, but it was white, lustrous and clean, and the trade was quite satisfied with its quality. Great attention continued to be paid to the production of good salt by inducing manufacturers to clean and set their pits properly, and Pachbadra salt is now of high quality. It would be in large demand, and would occupy a much stronger position in the market than it does at present, if the Source were not so distant from areas of consumption.

The salt pits of the source were carefully examined during the past year, and it was found that 153 had fallen into a state of entire disrepair. They have been accordingly struck out of our register of working pits, until the owners are prepared to put them in order.

Condition of pits. Character of salt and future prospects.

There are now 265 salt pits on our register as being in working condition. During the past year salt was extracted from 50 of these and the outturn, as estimated by the cubical measurement of heaps, amounted to about  $3\frac{1}{2}$  lakhs of maunds. Adding  $1\frac{1}{2}$  lakhs of maunds to this quantity, as the sum of the probable excesses which will be found on clearance of the heaps of salt, the total outturn may be taken at 5 lakhs of maunds, giving an average yield of 10,000 maunds from each pit.

Our reserve supply of salt lay in 215 pits and these are estimated to contain at least 15 lakhs of maunds. Adding the stock balance of  $2\frac{1}{2}$  lakhs of maunds to this quantity, we had, when the past year closed, a total stock of not less than  $17\frac{1}{2}$  lakhs of maunds available at the Source; a quantity large enough to meet any demand likely to arise.

54. The Luni salt tract forms part of the Pachbadra Division. There was no change in the strength of the establishment posted on the Luni river, and the important deposits of salt which form in the Luni and the channels of its delta were efficiently guarded during the year. The crops of the country at the head of the Runn of Cutch were abundant, the people were prosperous, and only two persons had to be arrested during the year for attempting to remove spontaneous salt.

Establishment in the Luni Salt Tract.

Free salt was issued as usual to the inhabitants of 39 villages of the Luni delta. Maunds 6,074-22 were issued to 40,497 persons at the rate of six seers each. The salt was of good quality, and was obtained from the large spontaneous deposits in the channels of the delta of the river.

Free salt to inhabitants of the Luni Salt Tract.

55. In the beginning of the year under review, I submitted proposals to Government for the final abandonment of the Falodi Salt Source and the removal of the establishment posted there. I proposed to make over the stock of salt in store at Falodi to the Jodhpur Darbar on the following terms;

FALODI.  
Closure of Falodi Salt Source.

- (1) The stock of salt as shown in the books of this Department to be taken over by the Durbar and guarded by Raj officials.

REVIEW BY SECTIONS.  
FALODI.

- (2) Sales from this stock to be effected through the agency of the Darbar, and all salt so sold to be debited against the quantity of duty-free salt deliverable under Article XII of the Jodhpur Treaty.
- (3) The cost price of salt thus sold to be paid to this Department at the rate of one and-a-half annas a British maund.
- (4) Accounts of sales to be furnished six-monthly by the Darbar, and the necessary adjustment in connection with the payment to this Department of the price of salt sold, to be made six-monthly at either the Sambhar, Pachbadra, or Didwana Treasury.
- (5) Should excesses over the registered stock occur in any of the heaps of salt now existing, the cost price of the salt composing such excesses to be paid to this Department, at the rate of one and-a-half annas a British maund, and the manufacturers to be paid by the Darbar, on account furnished by this Department, the value to them of such excess salt at the rate of one anna and three pies a British maund, this Department being debited with such payments to manufacturers.

The Government of India sanctioned these proposals in Finance and Commerce Department letter No. 3085S.R., dated 16th of July 1897, and the Darbar having acceded to the terms, the salt in stock at Falodi was delivered to an authorized Raj official and the establishment was withdrawn from the Source, with effect from the 1st October 1897.

## Stocks &amp; Issues.

Statistical information for the first six months of the year, during which the salt at the Source remained in the charge of this Department is submitted below.

<i>Stock Account.</i>				Mds.
Balance of stock on 1st April 1897	...	...	...	90,336
Sales during the six months	...	...	...	3,635
Balance of stock on 30th September 1897	...	...	...	86,701
<i>Receipts and charges.</i>				
Receipts—				Rs.
Sale price of 3,635 maunds of salt at 3 annas a maund	...	...	...	682
Miscellaneous items of revenue	...	...	...	16
Total, receipts				698
Charges—				Rs.
Salaries of Establishment]	...	...	...	777
Contingent expenditure	...	...	...	238
Total, charges				1,015
Loss on transaction of the half year	...	...	...	Rs. 317

The quantity of salt made over to the Darbar on the 1st of October 1897 was maunds 86,701, the balance which I have shown was in hand when departmental transactions closed on the 30th of September 1897.

The Darbar have informed me that the sales effected by the Raj officials during the half year which ended on the 31st of March 1898, amounted to maunds 4,284, leaving a balance of maunds 82,417 of registered stock in hand. The value, Rupees 401-10-0, of the salt sold by the Darbar, at the rate of one and-a-half annas a British maund, was duly paid into the Pachbadra Treasury during May 1898.

The entire sales of the year by this Department and by the Darbar amounted to only 7,919 maunds, compared with 15,000 maunds during 1896-97 and 10,591 maunds during 1895-96. I believe that the decrease is owing to the competition of Pachbadra salt, a quality superior to the produce of Falodi, which issues duty-free to the Darbar for consumption in the State.

56. In Article XI of the Salt Agreement with the Marwar Darbar, it is provided that in the event of the total realizations from the sale of salt at the salt sources of Didwana, Pachbadra, and Falodi exceeding in any year the total charges properly debitable against them, one-half of the excess shall be paid to the Darbar. I therefore place the following summary on record, which shows the financial results during the year under report of the lease of the sources I have named:—

Receipts.				Rs.
By sale of maunds 2,78,403 of salt at Didwana	...	...	...	17,100
Ditto " 5,94,827 ditto Pachbadra	...	...	...	55,765
Ditto " 3,635 ditto Falodi	...	...	...	682
Total " 8,76,865	...	...	...	73,547
Charges.				
To fixed and contingent charges { Didwana	...	...	...	36,830
excluding treaty payments. { Pachbadra	...	...	...	1,00,476
Liabilities under Article VI of the Agreement { Falodi	...	...	...	1,015
Ditto ditto X ditto	...	...	...	3,76,000
	...	...	...	1,25,000
Total	...	...	...	6,39,321
Net debitable balance				5,65,474

The expenditure debitable to the sources exceeded the total realizations by Rs. 5,65,474.

57. The following is the usual statement for all of the Salt sources in Rājputāna, the expenditure reckoned against selling price, under the system laid down in Resolution No. 326, dated the 17th of January 1882 of the Department of Finance and Commerce, and the total realizations from the 1st of April 1882 to the 31st of March 1898:—

Mode of reckoning, selling price explained.

1	2	3	4	5	6	7	8	9	10	11
Name of Source.	Manufacture, storage, and supervision.	Rent of sources and royalty on sales.	Despatching charges on through traffic and agency salt and commission to salt agents.	Total.	Quantity of salt produced, less ascertained wastage and free issues to Darbar.	Average cost, per maund of saleable stock as per column 6.	Total quantity sold.	Total price realized including miscellaneous charges.	Average price realized.	Profit or loss per maund.
	Rs.	Rs.	Rs.	Rs.	Maunds.	Rs. a p.	Maunds.	Rs.	Rs. a. p.	Rs. a. p.
Sambhar ...	31,82,946	91,30,400	4,55,273	1,27,68,618	6,38,66,359	0 3 2-39	6,06,30,598	1,56,40,071	0 4 1-53	+ 0 0 11-14
Didwana ...	1,84,172	9,07,751	...	10,91,923	66,18,137	0 2 7-65	60,74,429	6,27,819	0 1 7-84	- 0 0 11-54
Pachbadra ...	6,63,230	12,31,178	1,06,407	20,00,815	98,51,631	0 3 2-99	95,96,418	11,13,882	0 1 10-29	- 0 1 4-70
Falodi ...	22,497	47,235	...	69,732	4,01,330	0 2 9-36	3,14,629	44,811	0 2 3-36	- 0 0 6
Luni ...	...	12,000	...	12,000	1,615	7 4 8-61	1,615	359	0 3 5-90	- 7 1 2-71
Total, Marwar.	8,69,899	21,98,164	1,06,407	31,74,470	1,68,72,743	0 3 0-12	1,53,97,151	17,86,901	0 1 9-46	0 1 2-66
Total ...	10,52,844	1,13,28,564	5,61,680	1,59,43,088	8,07,39,102	0 3 1-91	7,66,17,749	1,74,26,972	0 3 7-67	+ 0 0 5-76

Note.—The figures in column 3 represent—

- (1) In the case of Sambhar, the total treaty payments for the first eight years at the rate of Rs. 5,50,000 per annum plus the amount of royalty actually paid, and the amount for each of the remaining eight years of the rateable share calculated on sales of the fixed sum of Rs. 5,00,000 now chargeable against the selling price for the whole of the Rājputāna sources under the orders of Government conveyed in letter No. 5441, dated 22nd November 1890.
- (2) In the cases of Didwana and Pachbadra, the rateable share for the first eight years calculated on sales of the sum of Rs. 1,70,000 chargeable against selling price under the orders of Government conveyed in letter No. 2051, dated 9th July 1884, and rateable shares for the remaining eight years of the fixed sum of Rs. 5,00,000 above referred to.
- (3) In the case of Falodi and Luni, the rents Rs. 6,000 fixed by the Jodhpur Salt Agreement for the first eight years, and in the case of Falodi, for the remaining eight years, the rateable share of the sum of Rs. 5,00,000. No sales are now made from the Luni.



REVIEW BY SECTIONS.  
RAJPUTANA SALT  
SOURCES.

For the period of sixteen years to which the table relates, the average cost of salt produced at the Sambhar Lake, after allowing for all charges, amounted to three annas 2·39 pies a maund, it was sold at an average price of four annas 1·53 pies a maund, and a profit accrued of 11·14 pies a maund.

At the other salt sources combined, the average cost of the salt produced was three annas and ·12 of a pie a maund, the average rate of sale was one anna and 9·46 pies a maund, and a loss occurred of one anna and 2·66 pies a maund.

Taking all of the salt sources together, maunds 8,07,39,102 of salt were produced during the sixteen years at an average cost of three annas 1·91 pies a maund, maunds 7,66,17,749 were sold at an average price of three annas 7·67 pies a maund, and a profit was realized of 5·76 pies a maund.

The net profit for the entire period amounts to Rs. 14,83,884, or Rs. 92,742 per annum.

58. Finally, the next statement shows, for all of the Rajputana salt sources, the total expenditure which must be recouped from selling price, and the total realizations on account of sale price, from 1870-71 (the year in which the Sambhar Lake was leased) to the close of 1897-98. The treaty and royalty payments included in the total charges shown in the third column of the statement, have been calculated in the manner indicated by the notes at the foot of the table in the preceding paragraph:—

Year.	Opening stock.	Total charges.	Total realizations.	Stock at close of the year.	Value of stock at the average selling rate from 1st April 1870 to close of the year.	Excess of realizations over charges.	Profit or loss.
1	2	3	4	5	6	7	8
	Maunds.	Rs.	Rs.	Maunds.	Rs.	Rs.	Rs.
1870-71 ...	19,73,044	5,92,267	7,78,682	31,70,367	19,81,479	+ 1,86,395	+21,67,874
1871-72 ...	31,70,367	11,80,747	14,37,738	32,05,272	19,40,358	+ 2,56,901	+21,97,349
1872-73 ...	32,05,272	17,71,801	23,20,122	34,88,935	21,54,576	+ 5,48,321	+27,42,897
1873-74 ...	34,88,935	23,72,631	30,83,191	42,82,742	27,27,348	+ 7,10,560	+34,37,908
1874-75 ...	42,82,742	29,89,790	37,84,376	50,57,097	32,38,386	+ 7,94,586	+40,32,972
1875-76 ...	50,57,097	35,91,405	47,13,995	56,52,887	35,53,664	+11,22,590	+46,76,254
1876-77 ...	56,52,887	42,10,708	55,86,651	58,84,187	23,43,055	+13,75,943	+37,18,998
1877-78 ...	58,84,187	51,80,222	69,57,295	72,38,211	41,87,173	+17,77,073	+69,64,246
1878-79 ...	72,38,211	62,92,371	82,78,191	88,82,308	48,89,439	+19,85,820	+68,76,253
1879-80 ...	88,82,308	79,81,252	95,15,317	56,51,885	28,02,393	+21,84,066	+49,86,458
1880-81 ...	56,51,885	83,99,820	1,07,43,389	56,65,779	26,39,309	+23,43,569	+40,82,878
1881-82 ...	56,65,779	97,81,906	1,21,38,603	46,43,714	20,31,383	+23,56,637	+43,88,030
1882-83 ...	46,43,714	1,10,66,262	1,35,48,737	56,22,993	23,57,558	+24,83,475	+48,41,033
1883-84 ...	56,22,993	1,24,36,516	1,49,33,277	88,11,927	85,78,927	+24,96,761	+60,76,688
1884-85 ...	88,11,927	1,35,74,147	1,59,58,268	36,70,276	13,98,719	+23,84,121	+37,82,840
1885-86 ...	36,70,276	1,44,82,167	1,65,43,996	29,54,661	10,90,147	+20,61,829	+21,51,976
1886-87 ...	29,54,661	1,67,99,028	1,77,62,305	56,55,901	20,19,628	+19,63,277	+39,72,305
1887-88 ...	56,55,901	1,70,30,233	1,87,99,469	59,18,395	20,43,388	+17,09,236	+38,12,624
1888-89 ...	59,18,395	1,83,23,291	1,98,86,600	87,62,226	29,43,392	+15,63,899	+45,06,791
1889-90 ...	87,62,226	1,95,42,362	2,09,80,918	67,84,343	22,23,992	+14,88,556	+36,62,548
1890-91 ...	67,84,343	2,03,53,097	2,20,75,111	83,55,161	26,65,383	+17,22,014	+43,87,397
1891-92 ...	83,55,161	2,11,37,365	2,29,61,788	73,89,554	22,84,219	+18,24,429	+41,08,642
1892-93 ...	73,89,554	2,17,73,047	2,39,37,604	13,97,453	4,17,562	+21,64,457	+25,82,019
1893-94 ...	13,97,453	2,25,35,798	2,60,74,837	20,56,313	6,18,254	+25,39,039	+31,57,293
1894-95 ...	20,56,313	2,31,14,350	2,63,18,324	53,74,823	15,73,535	+29,03,698	+44,77,503
1895-96 ...	53,74,823	2,42,23,827	2,78,48,265	71,46,637	20,66,669	+31,24,441	+51,01,010
1896-97 ...	71,46,637	2,50,15,291	2,84,33,158	65,93,927	18,85,108	+34,17,827	+63,02,075
1897-98 ...	65,93,927	2,57,24,994	2,93,65,676	41,21,353	11,66,858	+38,40,591	+50,07,489

The receipts for the entire period of twenty eight years amount to Rs. 2,95,65,575, the expenditure to Rs. 2,57,24,994, and a profit is left of Rs. 38,40,581. Adding to this the money value Rs. 11,66,858, of maunds 41,21,353 of salt in stock at the close of

Expenditure to be re-  
couped from price and  
the total price realized.

the past year at the average selling price of the past twenty eight years, the gain in money and stock amounts to Rs. 50,07,439. But if the lease of the Sambhar Lake were terminated, 17½ lakhs of maunds of Sambhar salt, which were received when the Lake was leased, would have to be returned to the Darbars. Deducting the present money value of this quantity of salt (Rs. 4,31,250 at four annas a maund), the net profit at the close of the year under report amounted to Rs. 45,76,189.

# REVIEW BY SECTIONS RAJPUTANA SALT SOURCES.

59. The Internal Branch of the Department extends over the Panjáb, the North-Western Provinces and Oudh, the Patna and Bhagalpur Divisions of the Province of Bengal, the district of Ajmere-Merwara in Rájputana, and the city of Calcutta and its environs. The following statement shows the gross realizations, the fixed and contingent charges, and the net revenue of the branch for the past four years:—

## INTERNAL BRANCH. Gross realizations, charges, and net revenue

Year.	Gross realizations.					Charges.			Net revenue.
	Excise duty on salt.	License fees	Fees realized on clearance of sitta.	Miscellaneous.	Total.	Fixed.	Contingent.	Total.	
	Rs.	Ry.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1894-95	1,37,832	62,073	4,926	590	2,05,421	1,29,098	31,660	1,60,758	+44,663
1895-96	1,80,064	71,724	5,658	363	2,57,809	1,34,477	33,231	1,67,708	+90,101
1896-97	1,81,629	64,314	4,573	437	2,50,953	1,30,244	35,467	1,65,711	+85,242
1 897-98	1,78,803	57,079	4,266	189	2,40,337	1,29,377	37,698	1,67,075	+73,262

The gross realizations of the past year exceed those of 1894-95 by Rs. 34,916, but are less than those of 1895-96 and 1896-97 by Rs. 17,472 and Rs. 10,616, respectively. Compared with 1896-97, the revenue of the year under review shows a decrease of Rs. 2,826 under excise duty on salt, of Rs. 7,235 under license fees, and of Rs. 307 under the head of fees realized on clearance of sitta (impure salt). Full explanations in regard to these fluctuations will be given in succeeding paragraphs. There was a decrease also under miscellaneous collections, but the revenue under this head is so small that remarks do not seem to be called for.

Decrease in receipts.

Fluctuations in the total charges of the branch were not large during the past four years. Compared with 1896-97, there was a small increase of Rs. 1,364, which may be explained as follows:—

Under fixed charges there is a decrease of Rs. 867, owing to a smaller amount having been paid during the year on account of exchange compensation allowance. And contingent expenditure was larger by Rs. 2,231, owing to payments made to the subordinate establishment as compensation for dearness of food grain, and to heavier expenditure in connection with the travelling allowance of officers.

Decrease in fixed and increase in contingent charges explained.

The net revenue of the branch decreased from Rs. 85,242 during 1896-97 to Rs. 73,262 during the year under review, a difference of Rs. 11,980, due to a falling off in the revenue and to a slight increase in expenditure.

60. The following statement shows the licenses issued for the manufacture of saline substances, and the fees realized, in the Internal Branch during the past four years. With a view to the protection of the salt revenue, the Department

Issues of Licenses.

# REPORT ON THE ADMINISTRATION OF THE NORTHERN INDIA

REVIEW BY SECTIONS, INTERNAL BRANCH. supervises the manufacture of all of the substances named in the table :—

Year.	Saltpetre refineries.		Crude salt-petre.		Khari.		Sajji.		Rassi.		Total.	
	Number.	Fees.	Number.	Fees.	Number.	Fees.	Number.	Fees.	Number.	Fees.	Number.	Fees.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1894-95 ...	569	28,337	47,180	26,165	5,591	4,650	1,244	2,483	219	438	54,806	62,073
1895-96 ...	620	30,888	53,952	33,302	6,086	5,272	869	1,738	262	524	61,789	71,724
1896-97 ...	627	31,316	46,445	27,560	2,688	3,710	645	1,290	219	438	50,624	64,314
1897-98 ...	572	28,533	39,368	22,985	4,416	3,939	590	1,178	222	444	45,168	57,079

Variation in number of licenses.

*Saltpetre refineries.*—Compared with 1896-97, there was a decrease of 55 in the number of licenses issued for this important class of works during the past year. The following is a classification by provinces of the issues of the past two years :—

	1896-97.	1897-98.
	No.	No.
Panjáb ...	42	40
North-Western Provinces and Oudh ...	164	156
Province of Behar ...	408	362
City of Calcutta ...	13	14
Total	627	572

There was an increase of one license in the number issued for the city of Calcutta, but a decrease everywhere else. There was a falling off in the issues, of 2 in the Panjáb, of 8 in the North-Western Provinces and of 46 in Behar. The decrease in the number of these works was owing to low prices and slack demand for saltpetre at Calcutta, and the matter will be fully dealt with in the next three paragraphs. The circumstances under which the refineries at Calcutta work, differ from those which obtain up country. The owners have not to lay out capital in arranging for supplies of crude saltpetre produced at widely scattered localities, but merely purify imperfectly refined goods brought to Calcutta from Upper India. They could, therefore, afford to keep up their factories during an unfavourable year like the past, and wait for better times.

*Crude-saltpetre.*—The number of licenses for the manufacture of this substance which issued during the past year was 39,368, compared with 46,445 during 1896-97, or a decrease of 7,077 licenses. Classified by provinces the issues were as follows :—

	1896-97.	1897-98.
	No.	No.
Panjáb ...	1,363	1,145
North-Western Provinces and Oudh ...	7,777	6,394
Province of Behar ...	37,305	31,829
Total	46,445	39,368

The manufacture of crude saltpetre was in a depressed condition throughout the past year. There was a decrease of 218 licenses in the Panjáb, of 1,383 licenses in the North-Western Provinces and Oudh, and of 5,476 licenses in Behar.

During the first three months of the year, there was severe drought over the whole area within which crude saltpetre is manufactured, and this rendered the nitrous soil of villages so poor in nitrate of potash that in a large number of cases it was not profitable to work factories. The monsoon rainfall of 1897 was sufficient, but the export trade in saltpetre at Calcutta was in a very depressed state and continued so to the close of the year. Prices of saltpetre fell to rates which were hardly remunerative and demand was slack. Some refineries closed; those which remained open worked comparatively feebly, and this reacted upon the crude saltpetre industry to the extent described.

*Khari*.—This substance is an impure form of sulphate of soda. During the year there was an increase of 1,728 in the number of licenses which issued, 4,416 having been taken out, compared with only 2,688 during 1896-97. The following table gives details of the issues in different areas:—

		1896-97.	1897-98.
		No.	No.
North-Western Provinces and Oudh	...	319	308
Province of Behar	...	2,369	4,108
	Total	2,688	4,416

There was very little difference in the number of licenses which issued in the North-Western Provinces and Oudh during the two years. Factories worked in the Bulandshahr, Etah, Budaun, Mainpuri, Cawnpore, Fatehpur, Mirzapur, Jaunpur, Unao, and Hardoi districts. Manufacture was carried on during the first three months of the past year—the hot season—and the sulphate of soda efflorescence was so poor, owing to the great drought which prevailed, that the outturn was small. Great care has to be taken in the supervision of these works, owing to the presence of chloride of sodium in the efflorescence utilized in the manufacture.

In Behar, there was an increase of 1,739 in the number of licenses issued, as compared with 1896-97. Manufacture is carried on by artificial heat, and this permitted of the utilization of the efflorescence which appeared in abundance after the monsoon rainfall of 1897, the increase in the number of factories being due to the reaction which resulted from favourable conditions after the comparative failure in manufacture during the drought of 1896-97. The Muzaffarpur district is the centre of this manufacture; but it is also carried on largely in the Saran district, and to a less important extent in Champaran and Darbhanga.

Khari (impure sulphate of soda) is used for curing hides, and the produce of the works licensed is widely distributed over Bengal and Northern India.

*Sajji*.—This is an impure form of carbonate of soda produced by artificial heat. It is largely exported to Lower Bengal, where it is used for washing clothes and other purposes, and it is so easily manufactured that markets frequently become over-stocked. The Gházipur district is the centre of this industry, and it is also carried on in the Azamgarh, Benares, and Jaunpur districts. During the past four years, there has been a steady decrease in the number of factories worked owing to slackness in the demand for Sajji.

# REPORT ON THE ADMINISTRATION OF THE NORTHERN INDIA

## REVIEW BY SECTIONS. INTERNAL BRANCH.

*Rassi*.—This is another form of impure carbonate of soda, and is produced by solar heat. The number of factories which worked during the past year did not materially differ from those which were licensed in 1896-97. This industry is carried on during the hot season, and the drought which prevailed during the first three months of the year rendered efflorescence poor and had a prejudicial effect upon manufacture. Factories worked in the Cawnpore, Lucknow, Jhānsi, and Jalaun districts.

Outturn of saltpetre refineries at work.

61. The following statement gives details in connection with the working of saltpetre refineries during the past four years:—

Year.				Number of refineries.	Quantity of crude saltpetre dissolved.	Quantity of refined saltpetre produced.	Total quantity of salt educed.
					Mds.	Mds.	Mds.
1894-95	...	...	...	575	12,24,090	7,26,287	1,14,534
1895-96	...	...	...	611	15,99,156	9,28,199	1,56,301
1896-97	...	...	...	651	18,10,802	10,23,692	1,96,598
1897-98	...	...	...	622	12,22,488	7,08,738	1,51,524

The number of refineries fell from 651 during 1896-97 to 622 during 1897-98, a decrease of 29 factories. Classified by provinces, the distribution of the factories which worked during the past two years stands as follows:—

		1896-97.	1897-98.
		No.	No.
Panjáb	...	43	40
North-Western Provinces and Oudh	...	167	160
Province of Behar	...	428	409
City of Calcutta	...	13	13
Total	...	651	622

The number of working factories at Calcutta remained the same as in 1896-97, but there was a decrease everywhere else; of 3 in the Panjáb, of 7 in the North-Western Provinces and Oudh, and of 19 in Behar. This falling off was due to low prices and to a slack demand for saltpetre for export beyond sea from Calcutta.

The figures in the table show how very greatly the industry was affected by the unfavourable conditions of the past year. Compared with 1896-97, there was a decrease of maunds 5,88,314, equivalent to 32 per cent., in the quantity of crude saltpetre utilized; and a decline of maunds 3,14,954, equal to 30 per cent., in the amount of refined material produced. The percentage of refined saltpetre produced on crude saltpetre dissolved, rose from 56·53 in 1896-97 to 57·97 during 1897-98.

The quantity of salt produced fell from maunds 1,96,598 in 1896-97 to maunds 1,51,524 during the year under review, or a decrease of 45,074 maunds, due of course to the contraction of refinery operations which occurred during the latter period. The percentage of salt educed on crude saltpetre dissolved rose from 10·85 per cent. during 1896-97 to 12·39 per cent. during the past year, which indicates a higher percentage of chloride of sodium in the crude material used, owing to the drought having brought salt to the surface of the soil in larger quantities than usual.

SALT REVENUE DEPARTMENT FOR THE OFFICIAL YEAR 1897-98.

62. The following details show the working of refineries during the past two years in the different provinces and at Calcutta :—

REVIEW BY  
INTERNAL  
Detail of  
refineries b

					1896-97.	1897-98.
<i>Panjab.</i>						
Refineries at work	...	...	...	No.	43	40
Crude saltpetre dissolved in refineries	...	...	...	Mds.	2,50,248	1,70,370
Outturn of refined saltpetre	...	...	...	"	90,259	65,665
Sitta educed	...	...	...	"	63,893	42,705
Percentage of refined saltpetre produced on crude dissolved	...	...	...	...	36 06	38 49
Percentage of Sitta educed on crude dissolved	...	...	...	...	25 32	25 07
<i>North-Western Provinces and Oudh.</i>						
Refineries working	...	...	...	No.	167	160
Crude saltpetre dissolved	...	...	...	Mds.	5,29,857	3,77,303
Refined saltpetre produced	...	...	...	"	2,61,934	1,80,380
Salt educed	...	...	...	"	96,447	69,367
Percentage of refined saltpetre on crude dissolved	...	...	...	...	49 43	47 81
Percentage of Sitta on crude dissolved excluding crude saltpetre in Sitta refineries	...	...	...	...	18 29	18 38
Quantity of Sitta produced on dissolving crude saltpetre in Sitta refineries.	...	...	...	Mds.	13,138	8,462
<i>Province of Behar.</i>						
Refineries working	...	...	...	No.	428	409
Crude saltpetre dissolved	...	...	...	Mds.	7,12,361	5,14,823
Refined saltpetre produced	...	...	...	"	4,12,179	3,24,185
Salt educed	...	...	...	"	21,969	21,155
Percentage of refined saltpetre on crude dissolved	...	...	...	...	57 86	62 97
Percentage of salt ditto ditto	...	...	...	...	3 08	4 11
<i>Bengal (Calcutta).</i>						
Refineries working	...	...	...	No.	13	13
Crude and Kutia saltpetre purified	...	...	...	Mds.	3,18,336	1,59,992
Refined saltpetre produced	...	...	...	"	2,59,320	1,28,608
Salt, pure and impure educed	...	...	...	"	31,903	18,297
Percentage of refined saltpetre obtained	...	...	...	...	81 46	80 38
Percentage of salt educed	...	...	...	...	10 02	11 44

During the past year there was a general decline in the industry for the reason which I have already given, low prices and slack demand.

63. The following statements contain information in regard to the trade in saltpetre of the city of Calcutta during the past four years :—

Imports into and export from Calcutta of refined saltpetre.

		Imports.			
		1894-95.	1895-96.	1896-97.	1897-98.
		Mds.	Mds.	Mds.	Mds.
By East Indian Railway	...	5,62,077	7,33,107	8,03,146	5,90,935
" Eastern Bengal State Railway	...	670	632	...	7
" Boat	...	1,320	2,425	1,024	975
" Inland steamer	...	1,741	313	...	...
" Sea	...	...	...	...	...
Total	...	5,65,808	7,36,477	8,04,170	5,91,917
		Exports.			
		1894-95.	1895-96.	1896-97.	1897-98.
		Mds.	Mds.	Mds.	Mds.
By East Indian Railway	...	7,965	4,897	8,641	10,808
" Eastern Bengal State Railway	...	2,034	1,764	2,595	1,047
" Boat	...	4,084	1,184	2,534	926
" Inland steamer	...	814	661	695	937
" Sea	...	4,79,812	5,72,607	7,25,835	5,69,853
Total	...	4,94,739	5,81,113	7,40,309	5,83,201

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## REVIEW BY SECTIONS. INTERNAL BRANCH.

Imports were larger during the past year than in 1894-95, but compared with 1895-96 and 1896-97 a decrease appears of maunds 1,44,560 and maunds 2,12,253 respectively.

The exports exceed the figures of 1894-95 and 1895-96, but they were below those of 1896-97 by 1,57,099 maunds, a decline of 21 per cent. The figures of exports by sea show the extent to which the trade declined under a slackened demand from foreign markets.

The next statement shows the territorial areas from which the saltpetre imported into Calcutta was obtained:—

	1894-95.	1895-96.	1896-97.	1897-98.
	Mds.	Mds.	Mds.	Mds.
From North-Western Provinces and Oudh ...	1,35,119	2,54,465	2,56,009	1,74,978
„ Panjáb ...	50,995	63,635	76,356	53,993
„ Rájputána and Central India ...	1,535	1,390	1,363	...
„ Province of Behar ...	3,76,254	4,16,674	4,70,380	3,57,928
„ Bengal ...	164	...	62	13
„ Bombay ...	...	313	...	...
„ Madras ...	1,740	...	...	...
„ Foreign Ports ...	1	...	..	...
Total ...	5,65,808	7,36,477	8,04,170	5,91,917

As usual, the greater part of the supply was received from the Province of Behar, the North-Western Provinces and Oudh come next in importance, and the Panjáb stands third. The position of each of these three areas indicates the degree in which climatic conditions are favourable to the growth of the nitrous ferments. It will be noticed that the figures of the past year show a general decline in the trade.

The saltpetre industry is such an important one, and gives employment to so many thousands of the poorest classes in Behar and Northern India, that its depressed condition during the year is greatly to be regretted.

Saltpetre salt excised and  
Sitta and salt destroyed.

64. The next statement shows the quantities of saltpetre salt excised, and of salt and Sitta (impure salt) destroyed, in saltpetre refineries in the Internal Branch during the past four years:—

Year.	Salt excised.	Sitta and salt destroyed.		Salt in bond.
		Sitta.	Salt.	
	Mds.	Mds.	Mds.	Mds.
1894-95 ...	55,133	62,990	12,991	28,104
1895-96 ...	72,025	75,966	16,919	57,779
1896-97 ...	72,652	98,241	65,903	69,791
1897-98 ...	71,521	64,934	67,522	39,688

Maunds 2,03,977 of purified and impure salt were dealt with during the past year, compared with maunds 2,36,796 in 1896-97, or a decrease of maunds 32,819.

Compared with 1896-97, there was a small decrease of maunds 1,131 in the quantity of salt excised during the past year. Of the total quantity excised during the year, 116 maunds were taxed in the Panjáb, 37,708 maunds in the North-Western Provinces and Oudh, 20,215 maunds in Behar and 13,482 maunds at Calcutta. Of the salt excised at Calcutta, only 1,010 maunds were consumed in that city; 12,192 maunds were exported under *rawannas* to the Burdwan district, 100 maunds to the Hughli district, and 180 maunds to the Midnapur district.

REVIEW BY SECTIONS.  
INTERNAL BRANCH.

There was a decrease of 33,307 maunds in the quantity of sitta destroyed during the year, compared with 1896-97. This was due to the contraction in the operations in refineries and the production of a smaller quantity of sitta. Of the total quantity of 64,934 maunds dealt with in 1897-98, 37,584 maunds were destroyed in the Panjáb, 8,254 maunds in the North-Western Provinces and Oudh, 8,097 maunds in Behar, and 10,999 maunds in Calcutta. There is practically no market for duty-paid saltpetre salt in the Panjáb, and the demand elsewhere is limited. It is, therefore, not profitable to refine all the impure salt which is produced.

Compared with the figures of 1896-97, there is a small increase of 1,619 maunds in the quantity of salt destroyed during the year. Of the total quantity, 54,982 maunds were destroyed in the North-Western Provinces and Oudh, 1,569 maunds in Behar, and 10,971 maunds in Calcutta. As already mentioned, there is only a limited market for taxed saltpetre salt, and the quantity which the saltpetre refiners chose to destroy shows that the supply was in excess of the demand.

The destruction of salt (both pure and impure) does not affect the salt revenue prejudicially. All that the interests of that revenue call for is that saltpetre salt shall not enter the market except after payment of duty. Saltpetre refiners have the option of either excising or of destroying their salt, and in disposing of their produce they are influenced by market demand and prices obtainable.

During the past year, a quantity of 8,547 maunds of sitta (impure salt) was passed out of saltpetre refineries in the Panjáb and the western districts of the North-Western Provinces on payment of a fee of eight annas a maund. Comparative issues were as follows:—

Sitta passed out of refineries for industrial purposes.

				1896-97.	1897-98.
				Mds.	Mds.
North-Western Provinces and Oudh	...	...	...	3,194	2,192
Panjáb	...	...	...	5,357	6,055
Total				8,551	8,547

There was a decrease in the North-Western Provinces, and a slight increase in the Panjáb. The total quantity cleared during the year was less than that which issued in 1896-97 by 604 maunds. Sitta is used for industrial purposes. It is largely employed in the hide-curing industry and in salting goat skins for export to the Madras Presidency.

65. The following is an account of refunds of salt duty allowed to the North-West Soap Company at Meerut on salt used in the manufacture of soap, and to the firm of Messrs. Schroder Smidt and Company on salt utilized by them in their factories at Cawnpore and Dinapur, in salting hides and skins for export to Europe and America.

Refunds of duty on salt used for industrial purposes.



REVIEW BY SECTIONS.  
INTERNAL BRANCH.

The following table gives particulars of the work of the North-West Soap Company's factory at Meerut during the past four years:—

Year.	Quantity of soap produced.	Salt consumed in the manufacture of soap.					Refund of duty.	
		Opening balance of salt.	Quantity of salt received in store.	Total stock of salt.	Quantity of salt utilized.	Closing balance of salt.	Quantity of salt.	Amount of duty.
	Mds. sr.	Mds. sr.	Mds. sr.	Mds. sr.	Mds. sr.	Mds. sr.	Mds. sr.	Rs. as.
1891-95 ...	10,299 10	71 25	599 13	670 38	670 38	... ..	645 30	1,614 6
1895-96 ...	12,858 25	... ..	770 7	770 7	770 7	... ..	765 6	1,912 14
1896-97 ...	12,225 29	... ..	966 6	966 6	829 26	136 20	774 0	1,935 0
1897-98 ...	12,616 8	136 20½	754 37	891 17½	838 32	52 25½	838 21½	2,096 5½

Compared with 1896-97, there was an increase during the past year of maunds 391 in the quantity of soap produced, and of maunds 9 in the amount of salt utilized in the manufacture. The proportion of salt to soap amounted to 6·65 per cent. compared with 6·78 per cent. in 1896-97 and 5·99 per cent. during 1895-96. A refund of duty of Rs. 2,096 was made during the year on 838 maunds of salt used in soap manufacture. These figures are slightly in excess of those of 1896-97. The Company conformed carefully to all the Departmental rules connected with the concession, and their arrangements for the safe custody of salt continued to be satisfactory.

The following table shows the salt used in the hide factory belonging to Messrs. Schroder Smidt and Company at Cawnpore during the past two years:—

Year.	Salt consumed in salting skins and hides.					Refund of duty.	
	Opening balance of salt.	Quantity of salt received.	Total stock of salt.	Quantity of salt utilized.	Closing balance of salt.	Quantity of salt.	Amount of duty.
	Mds. sr.	Mds. sr.	Mds. sr.	Mds. sr.	Mds. sr.	Mds. sr. ch.	Rs. a. p.
1896-97 ...	...	344 32½	344 32½	336 0½	8 31½	335 0 12	340 0 9
1897-98 ...	8 31½	170 1	178 32½	174 17½	2 0	155 24 8	389 0 6

Further particulars relating to the work done in the factory are as follows:—

			1896-97.	1897-98.
Hides cured ...	{ Number ...	...	17,783	8,744
	{ Weight ...	...	Mds. 3,270-28	Mds. 1,495-28
Skins cured ...	{ Number ...	...	24,131	33,221
	{ Weight ...	...	Mds. 758-39	Mds. 735-17
Salt used ...	{ In curing hides	...	Mds. 263-2-0	" 131-7-8
	{ Ditto skins	...	" 72-38-12	" 43-10-0
Total quantity of salt used		"	336-0-12	" 174-17-8
Average quantity of salt used		{ on each hide	chittaks 9-47	chittaks. 9-00
		{ ditto skin	1-33	83

Owing to restrictions placed upon the import of hides by foreign countries in consequence of the existence of plague in India, and also in consequence of the revised import tariff of America, the Company's trade in hides fell off considerably during the year. Their trade in skins improved. The average quantity of salt used in curing hides was fairly well maintained, but less was used for curing skins. Various kinds of skins are manipulated in the factory. Some are half cured

and dry, others are raw, while they differ greatly in size, and the quantity of salt required for each description differs. REVIEW BY SECTIONS.  
INTERNAL BRANCH.

The factory was frequently visited during the year by Departmental officers. Owing to an infringement of one of its conditions, I was compelled to withdraw the concession for a short period, until the Company was prepared to conform strictly to the rules to which they had agreed when the concession was granted.

The Company availed itself during the year of the concession granted to its hide factory at Dinapur. The following table shows the quantity of salt used for curing hides :—

Year.	Salt consumed in salting skin and hides.					Refund of duty.	
	Opening balance of salt.	Quantity of salt received.	Total stock of salt.	Quantity of stock utilized.	Closing balance of salt.	Quantity of salt.	Amount of duty.
	Mds. s. c.	Mds. s. c.	Mds. s. c.	Mds. s. c.	Mds. s. c.	Mds. s. c.	Rs. a. p.
1897-98 ...	67 26 0	94 12 0	161 38 0	158 20 0	3 18 0	158 20 0	396 4 0

No skins were cured in this factory. Hides were salted during the monsoon, and particulars of the work done are given below :—

Hides cured	...	{ Number ... 5,587
	...	{ Weight ... Mds. 917 6
Salt used in curing hides	...	Mds. 158-20
Average quantity of salt used in curing each hide	...	Chittaks. 18-15

66. The following statement, which is inserted at the request of the Government of Bengal, shows the imports of salt into Bengal from all other provinces during the past four years :—

Imports of salt into Bengal from all other provinces.

		Into Calcutta.	Into Bengal.	Into Behar.	Total.
		Mds.	Mds.	Mds.	Mds.
From North-Western Provinces and Oudh.	1894-95	150	416	2,114	2,680
	1895-96	2,193	73	3,487	5,753
	1896-97	49	3	2,585	2,636
	1897-98	390	28	6,391	6,809
From Panjáb	1894-95	387	...	68,433	68,820
	1895-96	496	...	73,574	73,070
	1896-97	416	...	1,03,060	1,04,576
	1897-98	232	...	1,37,011	1,37,243
From Rájputána and Central India...	1894-95	...	...	157	157
	1895-96	...	...	...	...
	1896-97	...	...	6,064	6,064
	1897-98	...	...	11,001	14,001
From Central Provinces	1894-95	...	5,002	...	5,002
	1895-96	...	3,153	...	3,156
	1896-97	...	6,320	337	6,657
	1897-98	...	8,423	...	8,426
From Bombay	1894-95	...	...	...	...
	1895-96	...	...	1,426	1,426
	1896-97	...	...	8	8
	1897-98	...	...	...	...
From Madras	1894-95	...	...	...	...
	1895-96	...	...	...	...
	1896-97	...	2,61,062	...	2,61,062
	1897-98	...	2,68,137	...	2,68,137
Total	1894-95	537	5,418	70,704	76,659
	1895-96	2,649	3,229	83,187	89,405
	1896-97	614	2,67,495	1,12,954	3,81,063
	1897-98	622	3,70,591	1,57,403	6,34,616

REVIEW BY SECTIONS.  
INTERNAL BRANCH.

The salt taxed by this Department was imported from the North-Western Provinces and Oudh, and from the Panjáb and Rájputána. Only 622 maunds of such salt were imported into Calcutta and Lower Bengal, and this small quantity was probably intended for the consumption of residents of Northern India temporarily domiciled in Bengal. Maunds 1,57,403 were imported into the Province of Behar; the greater proportion being rock salt from the Panjáb mines.

Exports from Bengal to other provinces.

The next statement shows the exports from Bengal to other provinces:—

				From Calcutta.	From Bengal.	From Behar.	Total.
				Maunds.	Maunds.	Maunds.	Maunds.
Into North-Western Provinces and Oudh.	{	1894-95 ...	...	3,18,655	...	4,948	3,23,603
		1895-96 ...	...	4,53,641	...	8,861	4,62,502
		1896-97 ...	...	4,16,451	...	5,283	4,21,734
		1897-98 ...	...	3,22,009	...	5,193	3,27,202
Into Panjáb ...	{	1894-95 ...	...	50	...	...	50
		1895-96 ...	...	93	...	...	93
		1896-97 ...	...	65	...	...	65
		1897-98 ...	...	110	...	...	110
Into Rájputána and Central India.	{	1894-95 ...	...	...	...	...	...
		1895-96 ...	...	...	...	...	...
		1896-97 ...	...	...	...	...	...
		1897-98 ...	...	...	...	672	672
Into Central Provinces ...	{	1894-95 ...	...	1,122	1,138	...	2,260
		1895-96 ...	...	...	280	9	289
		1896-97 ...	...	216	201	7	424
		1897-98 ...	...	743	678	26	1,447
Into Bombay ...	{	1894-95 ...	...	1	...	...	1
		1895-96 ...	...	...	...	...	...
		1896-97 ...	...	...	...	...	...
		1897-98 ...	...	...	...	...	...
Into Madras ...	{	1894-95 ...	...	...	...	...	...
		1895-96 ...	...	...	...	...	...
		1896-97 ...	...	...	2	...	2
		1897-98 ...	...	...	14	...	14
Into Assam ...	{	1894-95 ...	...	...	...	...	...
		1895-96 ...	...	...	...	...	...
		1896-97 ...	...	...	...	...	...
		1897-98 ...	...	...	453	...	453
Total ...	{	1894-95 ...	...	3,19,828	1,138	4,948	3,25,914
		1895-96 ...	...	4,53,734	280	8,870	4,62,884
		1896-97 ...	...	4,16,732	203	5,290	4,22,225
		1897-98 ...	...	3,22,862	1,145	5,891	3,29,898

The large quantity of salt exported to the North-Western Provinces and Oudh was for consumption in the eastern districts of that area. Imports into the Panjáb were petty, probably table salt. The quantity sent into the Rájputána and Central India area was probably consigned to the south-eastern part of Central India.

Imports of salt into Behar.

Taking the Province of Behar alone, the following table shows the quantities of salt imported into it from Calcutta during the past four years:—

				1894-95.	1895-96.	1896-97.	1897-98.
				Maunds.	Maunds.	Maunds.	Maunds.
Patna Division ...	...	...	...	17,15,661	17,11,995	17,21,688	16,50,711
Illegampur Division ...	...	...	...	10,42,632	9,56,350	10,76,330	10,78,022
Total ...	...	...	...	27,58,293	26,68,345	27,98,018	27,28,733

SALT REVENUE DEPARTMENT FOR THE OFFICIAL YEAR 1897-98.

The trade of the past year was good, though there was a slight falling off as compared with 1896-97. REVIEW BY SECTIONS.  
INTERNAL BRANCH.

Imports into Behar from other markets were as shown below:—

	1894-95.	1895-96.	1896-97.	1897-98.
	Maunds.	Maunds.	Maunds.	Maunds.
From North-Western Provinces and Oudh ...	2,114	3,487	2,565	6,391
" Panjab ...	68,433	78,574	1,03,960	1,37,011
" Bengal ...	5,623	1,317	5,310	2,038
" Rajputana and Central India ...	157	...	6,061	14,001
" Central Provinces ...	...	...	337	...
" Bombay ...	...	1,426	8	...
Total ...	76,327	81,804	1,18,261	1,59,501

There was an increase in the imports during the year of salt taxed by this Department, the larger proportion of the trade being in rock salt from the Panjab Mines Division.

Finally, the exports from Behar were as follows:—

	1894-95.	1895-96.	1896-97.	1897-98.
	Maunds.	Maunds.	Maunds.	Maunds.
Into North-Western Provinces and Oudh from the Behar block of the East Indian Railway.	4,948	8,861	5,283	5,193
Into Panjab from the Behar block of the East Indian Railway.	...	...	...	...
Into Bengal from the Behar block of the East Indian Railway.	6,043	44,210	11,443	16,043
Into Rajputana and Central India from the Behar block of the East Indian Railway.	...	...	...	672
Into Central Provinces from the Behar block of the East Indian Railway.	...	9	7	26
Into Nepal from districts on the northern frontier of the Behar Provinces.	149,897	1,74,571	2,23,296	2,90,556
Total ...	1,60,828	2,27,651	2,40,029	3,12,490

The trade with Nepal shows a steady progressive increase.

67. The following statement gives particulars for the past two years of the imports and exports of salt between Thibet and Nepal and British territory along the frontier of the North-Western Provinces and Oudh:—

Imports and exports of salt between Nepal and Thibet and the North-Western Provinces and Oudh.

	1896-97.		1897-98.	
	Imports.	Exports.	Imports.	Exports.
	Maunds.	Maunds.	Maunds.	Maunds.
Almora ...	17,586	3,313	16,875	3,523
Garhwāl ...	14,803	...	11,202	...
Nilang Pass etc Duhra Dūn ...	850	...	2,109	...
Pilibhit ...	...	4,794	...	6,089
Kheri ...	...	6,818	...	6,214
Bahraich ...	...	14,563	...	31,103
Gonda ...	...	5,035	...	2,075
Basti ...	...	11,597	...	24,383
Gorakhpur ...	...	10,632	...	13,828
Total ...	33,275	60,859	52,515	71,775

There was but little difference in the imports of the two years, but there was an increase of 11,416 maunds in the exports of the past year. Deducting imports from exports, the balance of trade for the year under review in favour of British territory amounted to 38,230 maunds, representing a money value of Rupees 95,575 on account of excise duty.

**PRICES OF SALT.**  
Prices of salt in the principal markets to which the operations of this Department extend.

68. The following figures show the prices of salt during the past two years in the principal markets of Northern India:—

					Wholesale rate per maund.		
					1897.	1898.	
					Rs. a. p.	Rs. a. p.	
<i>Panjab.</i>							
Rock salt	...	{	Lahore	...	...	3 0 3	3 1 9
			Amritsar	...	...	3 5 4	3 5 4
			Ludhiana	...	...	3 2 2	3 3 2
			Multan	...	...	3 4 3	3 4 3
			Rawalpindi	...	...	2 14 7	2 14 7
			Umballa	...	...	3 4 9	3 2 2
			Ferozepur	...	...	3 3 2	3 3 2
			Jullundar	...	...	3 1 3	3 1 3
Jhelum	...	...	2 13 8	2 13 8			
Shalipur	...	...	3 1 3	3 1 3			
<i>North-Western Provinces and Oudh.</i>							
Sambhar	...	{	Agra	...	...	3 3 0	3 2 6
			Cawnpore	...	...	3 3 0	3 5 0
			Allahabad	...	...	3 9 0	3 8 0
			Benares	...	...	3 8 0	3 8 6
			Lucknow	...	...	3 5 4	3 7 0
			Fyzabad	...	...	3 7 7	3 10 0
			Bareilly	...	...	3 7 0	3 6 0
			Meerut	...	...	3 7 0	3 6 0
<i>Behar.</i>							
Liverpool salt	...	{	Patna	...	...	3 8 0	3 9 0
			Saran (Chupra)	...	...	4 2 0	3 12 0
			Muzafferpur	...	...	3 8 3	3 12 0
			Champaran (Motihari)	...	...	3 8 0	3 10 0
			Buxar	...	...	3 9 6	...
			Darbhanga	...	...	3 7 0	...
<i>Central Provinces.</i>							
Bombay salt	...	{	Jubbulpore	...	...	4 0 0	4 0 0
			Nagpur	...	...	4 0 0	4 0 0
			Saugor	...	...	3 11 11	3 11 11
			Nimar	...	...	3 8 3	3 11 2
			Hoshangabad	...	...	4 0 0	4 0 9

*Panjab.*—The rates for this province have been taken from the *Gazette of India*. Practically, prices were the same during the two years.

*North-Western Provinces and Oudh.*—Prices have been obtained from Departmental returns. Fluctuations have not been important, and rates have been fairly well maintained at a satisfactorily low level.

*Behar.*—Here also rates have been obtained from Departmental returns. Prices have fluctuated slightly in accordance with the tone of the Calcutta salt market.

*Central Provinces.*—Rates have been taken from the *Gazette of India*.—Prices have been fairly steady.

69. Appendix IV of this reports will show in full detail, by divisions, the number of persons arrested for offences against the salt law, the number discharged by the Department after enquiry, the number prosecuted and the result of the prosecutions. An abstract is given below of the figures of the appendix for the past two years:—

Year.	Number arrested.	Released by the Department.	Sent up for trial.	Acquitted.	Convicted.	Percentage of convictions.
1896-97 ...	1,507	965	542	46	486	91.35
1897-98 ...	1,524	1,024	500	7	486	98.53

Compared with 1896-97, there was an increase during the past year of 17 in the number of persons arrested, and of 59 in

**PENAL ACTION OF THE DEPARTMENT.**  
Arrests, for breaches of the salt laws.

the number discharged after departmental enquiry. There was a decrease of 42 in the number of persons prosecuted, only seven persons were acquitted, and 486 persons were convicted during both years. The percentage of convictions on committals, 8.58, is satisfactory.

In the Panjáb Mines Division, 268 persons were arrested during the year, compared with 232 during 1896-97. No cases of importance occurred. There were 192 cases at Khairabad railway station, opposite Attock, in which petty quantities of Kohat salt below one seer were found in the possession of railway passengers, who were of course not interfered with. Out of the total of 268 persons, only 34 were prosecuted.

At the Sultánpur Salt Works only one case occurred, in which a labourer at one of the salt works attempted to remove a small quantity of salt.

Cases at the Rájputána Salt Sources were as follows:—There were 16 cases at Sambhar compared with 12 during 1896-97. In one case, three persons were seized with 28 seers of salt in their possession, and in another a man attempted to remove one maund and three seers of salt. In a third instance, a departmental peon was found to have removed two and a half seers of salt from a heap which he was appointed to guard. Other cases were of a petty nature. There were no seizures at Didwana during the year. At Pachbadra there were only seven cases compared with 52 during 1896-97, five persons were arrested in connection with thefts at the Pachbadra source and only two at the Luni salt tract. All of the cases were petty.

In the Internal Branch, 1,232 persons were arrested during the year, against 1,210 during 1896-97, but there was only a difference of one in the number of persons prosecuted during the two years. Considering that there was severe scarcity during the first three months of the year, the fact that offences against the salt law did not materially increase in number, is a proof of the adequacy of the measures of famine relief adopted by Government. In the Lower Division there was only one case of importance, in which an attempt was made to smuggle 22 maunds of saltpetre salt produced in the small Native State of Nawanagar, into British territory. The salt was seized and the importers punished by the courts. In the Upper Division, there was an important seizure of 30 maunds of salt produced on a saltpetre factory in the Gurgaon district of the Panjáb, and the manufacturer of the salt was duly punished. Owing to the increase in the duty on Kohat salt, there was a recrudescence of illicit manufacture in the Dera Ghazi Khan circle of this Division, on the extensive salt tracts west of the Indus in the Rajanpur sub-division of the Dera Ghazi Khan district. One hundred and four persons were arrested for manufacturing earth salt illicitly, and 77 maunds of such salt were seized. I have strengthened the preventive establishment in that direction, and the steps which have been taken will effectively check illicit practices.

70. The next statement gives particulars in regard to persons released by the Department during the past two years:—

Departmental releases.

Year.				Infirm persons, pregnant women and children.	For making or being in possession of less than one seer of illicit salt.	On proof of ignorance or inadvertence and for want of proof.	Total.
1896-97	...	...	...	19	797	150	965
1897-98	...	...	...	76	812	135	1,023

**PENAL ACTION OF THE DEPARTMENT.**

The heading of the table shows the reasons for release. A large number of persons arrested on the Indus Preventive Line were released for being in possession of less than one seer of Kohat salt.

Punishments awarded by Criminal Courts.

71. Appendix V shows particulars of punishments inflicted by Criminal Courts in cases prosecuted to conviction, and the table below gives the same information in an abstract form for the past two years:—

Year.				Number imprisoned in default of payment of fine.	Average period of imprisonment	Number who paid fines.	Average amount of fines.
				No.	m d.	No.	Rs.
1896-97	...	...	...	323	1 14	171	7 30
1897-98	...	...	...	290	1 8	204	8 63

During the past year, punishments were slightly more lenient than during 1896-97, but they were sufficiently deterrent.

**ADMINISTRATION DURING THE YEAR.**  
Criminal offences committed by Establishment.

72. The following statement gives particulars in regard to members of the Departmental Establishment who were punished for criminal offences during the year under review:—

Division.				Theft of salt.	Using criminal force to a woman.	House-trespass.	House breaking by night.
Panjáb Mines Division	...	...	...	...	...	1	1
Sambhar	...	...	...	1	...	...	...
Pachbadra	...	...	...	...	1	...	...
Total				1	1	1	1

All of the persons punished were peons. In the case at the Sambhar Lake, a peon was found to have removed two and a half seers of salt from a heap which he was appointed to guard, and he was sentenced to three months' rigorous imprisonment. In the Pachbadra Division, a peon attempted criminal violence with a female labourer and was punished with six months' rigorous imprisonment. The two men who committed crime in the Panjáb Mines Division were punished, with 20 stripes in the instance of house trespass, and with imprisonment for one year and ten months in the case of house-breaking.

Casualties in the Force.

73. The casualties among the establishment of the Department will be found in the table below:—

Strength of establishment during 18.7.98.	Assistant Commissioner.	Superintendents and Assistant Superintendents.	Inspectors.	Kotgushis.	Jamādars.	Peons.	English and vernacular clerks.	Servants.	Total.	Percentage of each kind of casualty on total establishment.
	6	43	60	42	180	1,646	131	61	2,203	...
Died	...	1	...	...	6	33	2	2	45	2 04
Discharged	...	...	1	...	...	21	...	...	22	1 00
Resigned	...	...	...	...	...	8	...	...	8	0 36
Retired to rejoin from leave.	...	...	...	...	...	61	...	...	61	2 76
Retired	...	...	...	...	1	23	3	1	28	1 27
Retired as unfit or pensioned	...	...	2	2	4	14	3	...	25	1 13
Discharged under reduction.	...	...	1	2	11	162	6	...	204	9 24
Total casualties	...	1	4	4	27	241	13	3	303	17 50
Percentage of casualties.	...	2 03	4 31	9 52	15 00	20 72	6 02	4 92	17 85	...

One Assistant Superintendent died during the year. The conduct of the establishment was satisfactory.

ADMINISTRATION  
DURING THE YEAR.

74. I was in charge of the Department during the whole of the year under review.

Officer in charge of the  
Department.

75. Mr. Ashton officiated during the year as Deputy Commissioner during Mr. Whitten's absence on furlough; and he is still in charge of the office.

Notice of officers.

It is impossible to over-estimate the value of the assistance given to me by Mr. Ashton during the year. His energy, ability, and intimate knowledge of the working of the Department make him eminently suited for the important post of Deputy Commissioner. Mr. Whitten has applied for permission to retire from the service, and I am recommending to the Government of India that Mr. Ashton should be confirmed in the office for which he is so well fitted.

Mr. Lyon was on leave for part of the year. During the rest of the year he managed the Sambhar Division, the most important in the Department, with his usual ability and vigour and with most successful results.

Mr. Buckley has shown great tact and energy in the charge of Pachbadra, which always presents peculiar difficulties. He deserves much credit for the success with which he has managed this troublesome and unpopular division during many years.

Mr. Bolster, as usual, has worked admirably in the important Panjāb Mines Division.

The results of the year have been most successful.

Mr. Bryan acted as Assistant Commissioner of the Upper Division, Internal Branch, in the vacancy caused by Mr. Whitten's absence.

His work was in every way excellent, and it affords me great pleasure to be able to recommend to the Government of India that he should be confirmed in the appointment.

Among Superintendents, I would specially mention Mr. Money. His work is of great importance, as he has for a long time been in charge of the important Mayo Mine at Khewra.

He managed this during the year with intelligence and success; and I have had much pleasure in being able to reward his special services by a special step in promotion.

Mr. Holford deserves credit for his zealous and efficient superintendence of the salt manufacture at Sambhar which involves arduous and trying work.

I recommended that he should be appointed to act as Assistant Commissioner during Mr. Lyon's absence on furlough and his management of the Division was very successful.

Mir Nasir Ali, Khan Bahadur, was as efficient as usual in his charge of the Sultānpur Salt Sources, where his high character and local influence make him specially useful.

Mr. Cash, Assistant Superintendent, has shown zeal and intelligence in the Dera Ghāzi Khan circle, and has done good service in the suppression of illicit salt manufacture.

Messrs. McGowan and Carter have had a most trying year in Kohat on account of the frontier disturbances, and the



ADMINISTRATION  
DURING THE YEAR.

Deputy Commissioner of the district speaks in the highest terms of their capacity and devotion to duty.

Both they and their subordinates displayed courage and zeal in the discharge of their duties, and the results were most successful.

I am glad to say that Mr. McGowan has been appointed Assistant Commissioner in charge of the Kohat Division since April 1st 1898 ; he well deserves the promotion ; and the charge is certainly one which should be managed by an Assistant Commissioner.

This is the last administration report which I shall submit, as I retire from the Indian Civil Service in December.

I have now had permanent charge of the Commissionership of Northern India Salt Revenue for nearly eight years, and I had previously officiated three times in the appointment. I hope, therefore, that I may be permitted to place on record my thanks to the officers of the Department for their loyal co-operation. As a body they are characterised by a very high sense of their duty to Government, and by an honourable desire to keep up the credit of their service; and it is chiefly owing to this that I am able to say that I leave the Department in as efficient a condition as when I received charge of it.

OFFICE OF THE COMMISSIONER,  
NORTHERN INDIA SALT REVENUE,  
SIMLA :

A. B. PATTERSON,  
*Commissioner.*

*The 28th August 1898.*

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## APPENDICES.

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## Comparative return of receipts and charges of the Northern

	Central office.		Panjáb Mines.		Kohat Mines.		Mandi Mines.		Sultanpur Salt Works.	
	1896-97.	1897-98	1896-97.	1897-98.	1896-97.	1897-98	1896-97	1897-98	1896-97	1897-98.
<i>I.—Sale-proceeds of Salt.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(1) Sambhar ... { Quantity ...	...	...	...	...	...	...	...	...	...	...
{ Price ...	...	...	...	...	...	...	...	...	...	...
(2) Didwana ... { Quantity ...	...	...	...	...	...	...	...	...	...	...
{ Price ...	...	...	...	...	...	...	...	...	...	...
(3) Pachbadra ... { Quantity ...	...	...	...	...	...	...	...	...	...	...
{ Price ...	...	...	...	...	...	...	...	...	...	...
(4) Falodi ... { Quantity ...	...	...	...	...	...	...	...	...	...	...
{ Price ...	...	...	...	...	...	...	...	...	...	...
(5) Panjáb Mines, { Quantity ...	...	...	20,26,469	21,57,999	...	...	...	...	...	...
{ Price ...	...	...	94,992	1,01,156	...	...	...	...	...	...
II.—Excise duty on { Quantity ...	...	...	20,26,469	21,57,999	...	...	...	...	1,11,877	80,030
{ Duty ...	...	...	50,66,173	53,94,939	...	...	...	...	2,79,693	2,00,074
III.—Kohat salt { Quantity ...	...	...	...	...	4,96,170	3,22,401	...	...	...	...
{ Duty ...	...	...	...	...	1,95,444	3,05,731	...	...	...	...
IV.—Share of Mandi { Quantity ...	...	...	...	...	...	...	1,25,361	1,24,632	...	...
{ Duty ...	...	...	...	...	...	...	39,175	38,918	...	...
V.—Government proprietary share in Sultanpur salt produce (Hakimi cess).	...	...	...	...	...	...	...	...	1,748	1,240
VI.—Fees for licenses in saline works. Internal Branch.	...	...	...	...	...	...	...	...	...	...
VII.—Miscellaneous, including fines and forfeitures.	...	...	1,029	855	17	53	...	...	13	17
VIII.—Carriage and freight, &c.	...	...	57,672	61,727	...	...	...	...	...	...
Total	...	...	52,19,866	55,58,737	1,95,461	3,05,784	39,175	38,918	2,81,454	2,01,310
<i>Charges.</i>										
Commissioner ...	35,964	28,626	...	...	...	...	...	...	...	...
Deputy Commissioner ...	15,108	12,000	...	...	...	...	...	...	...	...
Personal Assistant to Commissioner	4,980	5,111	...	...	...	...	...	...	...	...
Assistant Commissioners ...	...	...	9,195	9,860	...	...	...	...	...	...
Exchange compensation allowance	6,156	3,164	...	...	...	...	...	...	...	...
<i>Establishment.</i>										
Clerks ...	11,488	11,911	7,513	6,310	...	...	...	...	...	...
Servants and guards ...	994	1,006	1,267	1,271	...	...	...	...	...	...
<i>Preventive Establishment.</i>										
Superintendents and Assistant Superintendents.	...	...	50,246	49,739	9,446	13,298	4,180	4,520	5,139	4,800
Inspectors, kotgushts and jamadars ...	...	...	23,234	23,707	6,699	7,207	1,133	1,074	3,735	3,533
English and vernacular clerks ...	...	...	3,065	3,333	2,061	2,060	...	...	560	680
Servants and guards ...	...	...	67,881	62,945	27,867	34,146	1,076	1,016	6,637	6,596
Medical establishment ...	...	...	1,212	1,212	153	240	...	...	...	...
Temporary establishment ...	...	...	...	...	...	...	...	...	...	...
Exchange compensation allowance	...	...	...	553	...	...	...	...	...	...
Total	74,690	62,118	1,63,613	1,58,930	46,228	57,251	6,369	6,640	16,071	15,609
<i>Contingencies.</i>										
Travelling allowances ...	3,774	4,456	5,530	4,681	2,600	2,573	627	580	286	439
Compensation for dearness of food-grain	47	21	6,640	1,777	797	778	...	...	751	241
Conveyance of tents and records ...	1,108	1,329	300	496	238	422	...	...	...	...
Purchase of tents ...	390	359	38	30	...	...	...	...	...	...
House rent and horse allowance	...	...	207	173	171	654	360	360	...	...
Hot weather charges ...	119	141	76	60	123	157	...	...	...	...
Service postage charges ...	898	1,334	1,155	1,158	161	200	15	16	42	63
Telegram charges ...	97	99	36	23	45	51	...	...	2	...
Stationery charges ...	100	114	65	57	216	115	...	...	12	12
Excavation and manufacture	...	...	82,503	82,173	...	...	...	...	...	...
Rewards half fees, &c. ...	...	...	717	693	50	150	...	...	...	...
Through traffic charges ...	...	...	45,238	45,725	...	...	...	...	...	...
Commission on salt collections	...	...	...	...	37,929	39,465	...	...	...	...
Clothing grant ...	4,159	4,986	...	...	...	6,799	...	...	...	...
Miscellaneous ...	415	903	4,193	3,173	1,482	929	63	81	20	40
Light construction and repairs	...	...	26,599	29,613	3,223	10,255	...	...	769	680
Kitchens water-supply charges	...	...	...	1,227	...	...	...	...	...	...
Total	11,137	13,715	1,73,597	1,62,309	47,637	62,578	1,065	1,037	1,672	1,465
Refunds ...	...	...	28	...	...	...	...	...	1,365	278
Total charges	86,127	75,863	3,37,235	3,21,239	93,265	1,19,829	7,454	7,677	19,308	17,352
Net result ...	-88,127	-75,893	48,52,025	52,37,475	1,02,196	185,955	31,721	31,271	2,62,146	1,83,958
Excess of charges ...	0 46	0 39	6 46	5 78	47 71	22 49	19 03	19 71	6 86	8 62
Triary payments ...	...	...	...	...	...	...	...	...	...	...
Loss by deducting triary payments	...	...	...	...	...	...	...	...	...	...

## India Salt Revenue Department for the year 1897-98.

Sambhar Lake.		Didwana Salt Source.		Pachbadra Salt Source.		Faledi Salt Source.		Internal Branch.		Total.	
1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
39,31,210	41,03,440	...	...	...	...	...	...	...	...	39,31,210	41,03,440
9,79,301	10,25,860	...	...	...	...	...	...	...	...	9,79,301	10,25,860
...	...	2,77,235	2,78,403	...	...	...	...	...	...	2,77,235	2,78,403
...	...	17,327	17,400	...	...	...	...	...	...	17,327	17,400
...	...	...	...	6,43,102	5,04,827	...	...	...	...	6,43,102	5,04,827
...	...	...	...	60,291	55,765	...	...	...	...	60,291	55,765
...	...	...	...	...	...	15,000	3,635	...	...	15,000	3,635
...	...	...	...	...	...	2,812	682	...	...	2,812	682
...	...	...	...	...	...	...	...	...	...	20,26,469	21,57,999
...	...	...	...	...	...	...	...	...	...	91,992	1,01,156
39,26,210	40,98,440	2,45,381	2,38,403	5,03,832	4,24,827	...	...	72,652	71,521	68,86,421	70,71,220
98,15,525	1,02,46,099	6,13,453	5,96,008	12,59,579	10,62,067	...	...	1,81,629	1,78,593	1,72,16,052	1,76,78,050
...	...	...	...	...	...	...	...	...	...	4,96,170	3,22,404
...	...	...	...	...	...	...	...	...	...	1,95,444	5,05,731
...	...	...	...	...	...	...	...	...	...	1,25,361	1,21,632
...	...	...	...	...	...	...	...	...	...	89,175	38,948
...	...	...	...	...	...	...	...	...	...	1,748	1,249
...	...	...	...	...	...	...	...	68,887	61,315	68,887	61,315
246	230	107	116	351	315	...	16	437	189	2,200	1,791
18,767	27,276	...	...	6,389	5,434	...	...	...	...	82,828	94,437
1,08,13,812	1,12,99,465	6,30,887	6,13,524	13,26,610	11,23,581	2,812	698	2,50,953	2,10,337	1,57,61,060	1,65,62,414
...	...	...	...	...	...	...	...	...	...	35,904	28,626
...	...	...	...	...	...	...	...	...	...	15,108	12,000
...	...	...	...	...	...	...	...	...	...	4,980	5,111
9,575	7,885	7,250	7,850	6,550	7,204	...	...	14,452	15,000	47,022	47,719
...	...	...	...	...	...	...	...	1,353	689	7,509	4,163
14,894	15,393	1,980	2,151	3,619	3,470	...	...	8,444	9,172	47,968	48,407
1,093	1,061	588	587	770	747	...	...	1,295	1,317	6,010	5,959
43,474	40,022	4,700	6,450	8,790	8,320	...	...	39,075	36,954	1,65,052	1,64,103
14,483	15,053	1,642	1,413	7,853	7,697	919	483	32,571	33,143	92,269	93,310
4,072	3,674	180	162	...	76	...	...	6,163	5,994	16,101	15,679
21,518	20,983	4,111	4,089	14,497	14,627	498	294	26,114	27,108	1,70,229	1,72,084
1,509	1,498	648	618	1,506	1,551	...	...	...	...	5,028	5,149
4,425	2,494	...	...	...	...	...	...	...	...	4,425	2,494
557	...	...	...	681	509	...	...	774	...	2,012	1,062
1,15,630	1,07,963	21,099	23,300	44,236	44,201	1,417	777	1,30,214	1,29,377	6,19,677	6,06,166
1,202	1,458	50	121	562	1,247	20	21	18,966	20,712	33,707	36,818
2,745	491	566	515	532	1,444	57	7	1,320	2,435	13,515	7,712
...	90	...	...	103	55	...	...	2,380	3,148	4,129	5,540
...	...	23	...	4	9	...	...	1,708	625	2,253	1,029
...	...	...	...	...	...	...	...	1,318	1,364	2,051	2,591
91	100	60	58	108	117	...	...	185	170	795	823
572	696	70	75	290	297	30	20	2,574	2,984	6,167	6,833
104	51	6	2	4	5	...	...	1	3	295	234
31	39	6	7	25	20	...	...	334	322	791	696
1,64,017	1,17,080	12,183	6,428	44,571	31,001	...	...	...	...	3,02,524	2,36,652
11	71	...	...	123	35	...	...	2,355	2,636	3,258	3,765
29,049	14,493	...	...	11,234	11,951	...	...	...	...	85,521	72,169
...	...	...	...	...	...	...	...	...	...	37,929	39,465
...	...	...	...	...	...	...	...	...	...	4,459	11,785
2,594	1,818	319	369	5,274	2,796	436	175	1,133	371	16,229	10,655
5,729	2,795	1,144	1,963	2,269	3,023	20	16	...	...	89,713	29,374
...	...	...	...	...	...	...	...	...	...	...	1,227
2,06,235	1,39,182	14,377	9,538	65,459	52,000	563	238	32,632	34,830	5,51,534	4,76,632
47	...	8,557	3,992	3,818	4,275	...	...	2,775	2,598	16,599	11,447
8,21,912	2,47,145	44,033	36,530	1,13,573	1,00,476	1,589	1,015	1,65,711	1,67,075	11,20,601	10,94,501
1,64,91,930	1,10,52,320	5,86,854	5,76,694	12,13,037	10,23,105	832	—317	85,242	73,262	1,75,70,459	1,81,87,913
2-98	2-19	6-98	6-00	8-56	8-94	70-41	145-41	69-03	69-52	6-35	5-59
...	...	...	...	...	...	...	...	...	...	23,02,699	20,08,424
...	...	...	...	...	...	...	...	...	...	1,45,75,000	1,64,78,489

# APPENDIX No. II.

Statement showing the quantity of salt which paid excise duty at the several Salt Sources, and the excise duty collected thereon from 1st April 1897 to 31st March 1898.

					Quantity.		Duty.	
					At Rs. 2-8 per Maund.	Total.	At Rs. 2-8 per maund.	Total.
					Mds. s. ch.	Mds. s. ch.	Rs. s. p.	Rs. s. p.
Rambhar	...	...	...	...	23,59,880 0 0	40,08,439 20 0	59,81,715 0 0	1,02,16,008 12 0
					17,14,653 20 0	77,073 0 0	43,61,383 12 0	1,02,16,008 12 0
Pachbadra Salt Source	...	...	...	...	3,17,754 0 0	4,24,827 0 0	8,69,385 0 0	10,62,067 8 0
					2,38,103 0 0	2,38,403 0 0	5,96,007 8 0	5,96,007 8 0
Panjdu Mines	...	...	...	...	2,48,022 0 0	21,57,909 20 0	6,21,555 0 0	53,91,908 12 0
					19,09,377 20 0	80,029 30 0	47,73,443 12 0	2,00,074 6 0
Soliampur Salt Works	...	...	...	...	32,650 18 8	71,521 17 0	81,641 2 0	1,78,803 9 0
					38,864 38 8	70,71,220 7 0	97,162 6 6	1,76,78,060 7 0
Upper Division, Internal Branch	...	...	...	...	...	3,22,403 20 8	...	5,05,731 0 0
Lower Division, Internal Branch	...	...	...	...	...	1,24,632 20 0	...	38,917 10 6
Total					...	75,18,236 7 8	...	1,82,22,729 1 6
Grand Total					...	75,18,236 0 0	...	1,82,22,729 0 0

Total, as per weekly memo. No. 48 of 1897-98

# APPENDIX No. III.

*Comparative details in mawnds of the various descriptions of salt which paid duty in Northern India during the year ending 31st March 1898.*

Division.	Kinds of salt.				1896-97.	1897-98.	Remarks.
					Mds.	Mds.	
Panjāb Mines ...	...	...	...	...	20,26,469	21,57,999	
Kohat Mines ...	...	...	...	...	4,96,170	3,22,404	
Mandi Mines ...	...	...	...	...	1,25,361	1,24,632	
Sultānpur Salt Works ...	...	...	...	...	1,11,877	80,030	
Sambhar Lake ...	...	...	...	...	39,25,210	40,09,440	
Didwana Salt Source ...	...	...	...	...	2,45,381	2,38,403	
Pachbadra Salt Source ...	...	...	...	...	5,03,932	4,21,827	
Internal Branch ...	...	...	...	...	72,652	71,521	
				Total	75,07,952	75,18,256	



# APPENDIX No. IV.

*Comparative return of the number of persons arrested, convicted, &c., for the years 1896-97 and 1897-98.*

Division.	Year.	Total number of persons arrested.	Released by Department.				Sent up for trial.	Acquitted.	Convicted.	Pending when report was submitted.	Percentage of convictions on number of persons sent up for trial, less those whose cases are still pending.	Remarks.
			Infirm persons, pregnant women, and children.	For making possession of less than one seer of illicit salt.	On proof of ignorance or inadvertence and for want of proof.	Total.						
Panjáb Mines ...	1896-97	232	1	173	11	185	47	4	43	...	91.49	
	1897-98	268	...	222	12	234	34	...	34	...	100.00	
Sultánpur Salt Works	1896-97	...	...	...	...	...	...	...	...	...	...	
	1897-98	1	...	...	...	...	1	...	1	...	100.00	
Sambhar ...	1896-97	12	...	...	...	...	(a)12	...	11	...	(e)100.00	(a) One person absconded before trial.
	1897-98	16	...	...	...	...	16	...	16	...	100.00	
Didwana Salt Source	1896-97	1	...	...	...	...	1	...	1	...	100.00	
	1897-98	...	...	...	...	...	...	...	...	...	...	
Fachbadra Salt Source	1896-97	52	3	...	8	11	41	2	39	...	95.12	
	1897-98	7	...	...	...	...	7	...	7	...	100.00	
Falodi Salt Source	1896-97	...	...	...	...	...	...	...	...	...	...	
	1897-98	...	...	...	...	...	...	...	...	...	...	
Internal Branch	1896-97	1,210	14	624	131	769	(b)441	40	392	...	(e)90.74	(b) Nine persons absconded before trial.
	1897-98	1,232	76	590	134	790	(d)442	7	428	1	(e)98.39	(d) Six persons absconded before trial.
Total	1896-97	1,507	18	797	150	965	(c)512	46	486	...	(e)91.35	(c) Ten persons absconded before trial.
	1897-98	1,524	76	812	136	1,024	(e)500	7	486	1	(e)98.58	(d) Six persons absconded before trial.

(e) The percentages are calculated on the number of persons sent up for trial, less those whose cases are pending and those who have absconded.

# APPENDIX V.

Comparative details of persons imprisoned and fined for breach of the Northern India Salt Revenue Laws.

Division.	Year.	Imprisoned.								Number fined.								Remarks.			
		Number imprisoned for six months and upwards.	Number imprisoned for three months and below six months.	Number imprisoned for two months and below three months.	Number imprisoned for one month and below two months.	Number imprisoned for fifteen days and below one month.	Number imprisoned for 10 days and below 15 days.	Number imprisoned below 10 days.	Total number who underwent imprisonment.	Number who paid fines of Rs. 250 and upwards.	Above Rs. 100 and below Rs. 250.	Above Rs. 50 and up to Rs. 100.	Above Rs. 30 and up to Rs. 50.	Above Rs. 20 and up to Rs. 30.	Above Rs. 10 and up to Rs. 20.	Above Rs. 5 and up to Rs. 10.	Up to Rs. 5.		Total who paid fines.	Aggregate paid.	Average fines.
Panjáb Mines	1896-97...	...	2	6	5	1	...	...	14	...	...	...	1	2	7	11	13	34	392	11.53	...
	1897-98...	1	12	...	1	...	...	...	14	...	...	...	...	1	1	3	17	22	126	5.73	
Sultápur Salt Works	1896-97...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	1897-98...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	
Sambhar Lake	1896-97...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	10	10	14	1.10	...
	1897-98...	...	4	...	1	...	...	...	6	...	...	...	...	...	...	...	10	10	15	1.50	
Didwana Salt Source	1896-97...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	3.00	...
	1897-98...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pachaura Salt Source	1896-97...	4	25	2	1	1	...	2	35	...	...	...	...	...	...	...	4	4	7	1.75	...
	1897-98...	1	...	...	2	...	...	1	4	...	...	...	...	...	1	...	2	3	27	9.00	
Falodi Salt Source	1896-97...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	1897-98...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Internal Branch	1896-97...	5	30	29	87	49	27	46	273	...	...	...	...	5	15	26	76	122	833	6.83	...
	1897-98...	6	20	29	89	31	32	58	265	1	...	1	2	5	18	32	110	169	1,592	9.12	
Total	1896-97...	9	57	37	91	51	27	48	(a) 323	...	...	...	1	7	22	37	104	171	1,219	7.35	...
	1897-98...	8	36	29	93	32	34	58	(b) 270	1	...	1	2	6	20	35	139	204	1,760	8.63	

(a) Includes 8 persons punished with both fine and imprisonment.  
(b) Ditto 7 ditto.



# APPENDIX No. VI.

Statement showing the quantity of salt sold at each of the Mandi Mines during the year 1896-97 and 1897-98.

Year.	Name of Mines.	Quantity sold for consumption in British Territory.				Quantity sold for consumption in Native States.						Total quantity of salt sold.
		Kangra.	Kulu.	Simla.	Total.	Mandi.	Suket.	Chamba.	Bilaspur.	Rampur Bishnahr.	Total.	
1896-97	Guma	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
		50,473	1,298	...	51,771	11,724	...	120	...	...	11,844	63,615
	Drang	5,482	10,697	1,366	23,545	23,185	7,574	...	3,750	3,692	38,201	61,716
	Total	55,955	17,995	1,366	75,316	34,909	7,574	120	3,750	3,692	50,015	1,25,361
1897-98	Guma	48,612	1,015	...	49,627	13,969	...	91	...	...	14,060	63,687
		4,525	15,846	1,354	21,725	23,006	7,588	...	3,920	4,616	39,220	60,915
	Drang	53,137	10,861	1,354	71,352	37,035	7,588	91	3,920	4,616	53,280	1,24,632
	Total	...	...	...	...	...	...	...	...	...	...	...

